DOCUMENT RESUME

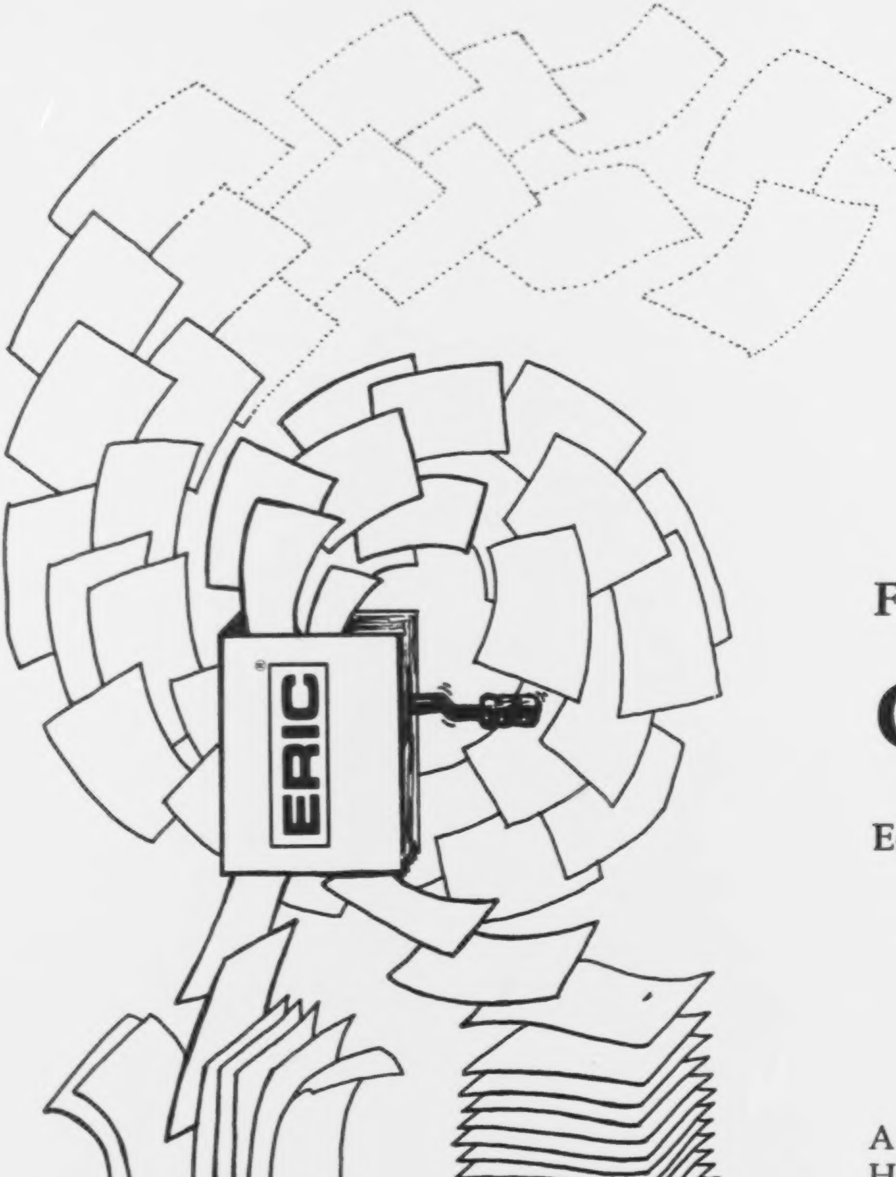
ED 321 480 EC 231 801

AUTHOR	Berger, Sandra L., Ed.
TITLE	Gifted Students: Flyer File.
INSTITUTION	Council for Exceptional Children, Reston, Va.; ERIC Clearinghouse on Handicapped and Gifted Children, Reston, Va.
SPONS AGENCY	Office of Educational Research and Improvement (ED), Washington, DC.
PUB DATE	90
CONTRACT	RI88062007
NOTE	71p.
AVAILABLE FROM	Council for Exceptional Children, Publication Sales, 1920 Association Dr., Reston, VA 22091 ($22.50 nonmembers; $18.00 members; Publication No. E105).
PUB TYPE	Collected Works - General (020) -- Information Analyses - ERIC Information Analysis Products (071) -- Guides - Non-Classroom Use (055)
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	*Academically Gifted; Career Education; Child Advocacy; Child Rearing; Creativity; Educational Needs; Elementary Secondary Education; Flexible Progression; *Gifted; Gifted Disabled; *Individual Needs; Mathematics; Microcomputers; Minority Groups; Parent Child Relationship; Postsecondary Education; Preschool Education; Reading Instruction; Stress Management; Student Needs; Summer Programs; *Talent; Talent Identification; Underachievement

ABSTRACT

This collection of 20 digests on gifted students is intended to provide practical information for students themselves, their families, professional educators, community groups, and others. Resources, hints and tips, and suggestions for additional reading are included in most digests. Digests have the following titles and authors/primary contributors: "Giftedness and the Gifted: What's It All About?" (D. W. Russell and others); "Helping Your Highly Gifted Child" (Stephanie Tolan); "Underachieving Gifted Students" (James Delisle and Sandra Berger); "Gifted but Learning Disabled: A Puzzling Paradox" (Susan Baum); "Meeting the Needs of Gifted and Talented Minority Language Students" (Linda Cohen); "Guiding the Gifted Reader" (Judith Wynn Halsted); "Discovering Mathematical Talent" (Richard Miller); "Personal Computers Help Gifted Students Work Smart" (Geoffrey Jones); "Fostering Academic Creativity in Gifted Students" (Paul Torrance and Kathy Goff); "Developing Leadership in Gifted Youth" (Frances Karnes and Suzanne Bean); "Mentor Relationships and Gifted Learners" (Sandra Berger); "Nurturing Giftedness in Young Children" (Wendy Roedell); "Helping Gifted Students with Stress Management" (Leslie Kaplan); "Helping Adolescents Adjust to Giftedness" (Thomas Buescher and Sharon Higham); "College Planning for Gifted and Talented Youth" (Sandra Berger); "Discovering Interests and Talents through Summer Experiences" (Cindy Ware); "Career Planning for Gifted and Talented Youth" (Barbara Kerr); "Fostering the Postsecondary Aspirations of Gifted Urban Minority Students" (Margaret McIntosh and M. Jean Greenlaw); "Supporting Gifted Education Through Advocacy" (Sandra Berger); "Readings and Resources for Parents and Teachers of Gifted Children" (Sandra Berger, Comp.); "Meeting the Needs of Able Learners through Flexible Pacing" (Neil Daniel and June Cox). (DB)

ED321480



FL

C

Ed

A p
Har

Pub
192

EC 231801

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality

---

- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

LYER FILE ON

Gifted Students

ited by Sandra L. Berger

product of the ERIC Clearinghouse on
ndicapped and Gifted Students

blished by The Council for Exceptional Children,
0 Association Drive, Reston, VA 22091–1589

The Council for Exceptional Children

The Council for Exceptional Children (CEC) is the only professional organization dedicated to improving the quality of education for all exceptional children including those with disabilities and those who are gifted. CEC is an international association with approximately 55,000 members. Since its founding in 1922, CEC has been committed to providing exceptional students with appropriate educational experiences designed to nurture their potential and support their achievements. To this end, CEC has set the following goals:

To promote the special education profession through the establishment of professional standards of practice and a code of ethics for all professionals involved in the education of exceptional persons.

To advance the education of exceptional children by improving access to special education for children underserved or inappropriately served, such as the gifted and talented, young adults over age 18, certain low incidence exceptionalities, and ethnic and culturally diverse populations, and by extending special education to children who could benefit from, but are not now considered entitled to, special education. Examples are children who are abused, neglected, suicidal, drug dependent, or who have a communicable disease.

To improve the quality of instruction by supporting the development and dissemination of new knowledge, technology, methodology, curriculum, and materials on a worldwide basis.

As the host organization for the ERIC Clearinghouse on Handicapped and Gifted Children, CEC is able to support the publication and dissemination of ERIC products to special educators and others interested in the education of exceptional children. For more information call 703/620-3660, The Council for Exceptional Children, 1920 Association Drive, Reston VA 22091–1589.

Cover design adapted from art submitted by Judith C. Leemann, Student, Class of 1989, York High School, Yorktown, Virginia.

ERIC
Clearinghouse on Handicapped and Gifted Children
THE COUNCIL FOR EXCEPTIONAL CHILDREN
1920 Association Drive • Reston, VA 22091-1589
FAX (703) 264-9494

ERIC Flyer File

INTRODUCTION

An effective approach to nurturing giftedness in children and adolescents requires a cooperative partnership between home and school, characterized by mutual respect and an ongoing sharing of ideas and observations about the children involved. To accomplish this, parents and educators must know something about giftedness and understand the needs of the children.

There are numerous publications dealing with the nature and nurture of gifted children. Indeed, during the past decade there has been an information explosion on this subject. However, parents and educators continue to ask, "Where can I find information that will help me raise my gifted child? How can I help gifted youngsters build a positive self-concept; develop talents in productive, satisfying ways; and become successful, self-fulfilled adults?"

ERIC Digests are designed to answer these questions by providing practical information, based on a unifying theme, for gifted students, their families, professional educators, community groups, and others. Contributors were selected because of their expertise, wisdom, and proven ability to provide information that is valuable and easy to use. Resources, hints and tips, and suggestions for additional reading are included in most digests.

These materials are in the public domain and may be freely duplicated for use as handouts, newsletter supplements, mail enclosures, and vertical-file resources. Credit must be given to the author of any work reproduced. Material may *not* be reproduced or distributed for any commercial purpose without *written* permission. The original material in these packets was developed for the ERIC Clearinghouse on Handicapped and Gifted Children to respond to information needs of the field.

This publication was prepared with funding from the U.S. Department of Education, Office of Educational Research and Improvement, under contract no. RI88062007. The opinions expressed in this report do not necessarily reflect the positions or policies of OERI or the Department of Education.

Clearinghouse on Handicapped and Gifted Children
THE COUNCIL FOR EXCEPTIONAL CHILDREN
1920 Association Drive • Reston, VA 22091-1589
FAX (703) 264-9494

ERIC
Flyer File

ERIC DIGESTS ON GIFTED LEARNERS

Introduction

E476 **Giftedness and the Gifted: What's It all About?**

E477 **Helping Your Highly Gifted Child**
Stephanie S. Tolan

E478 **Underachieving Gifted Students**
James R. Delisle & Sandra L. Berger

E479 **Gifted But Learning Disabled: A Puzzling Paradox**
Susan Baum

E480 **Meeting the Needs of Gifted and Talented Minority Language Students**
Linda M. Cohen

E481 **Guiding the Gifted Reader**
Judith Wynn Halsted

E482 **Discovering Mathematical Talent**
Richard Miller

E483 **Personal Computers Help Gifted Students Work Smart**
Geoffrey Jones

E484 **Fostering Academic Creativity in Gifted Students**
E. Paul Torrance & Kathy Goff

E485 **Developing Leadership in Gifted Youth**
Frances A. Karnes & Suzanne M. Bean

E486 **Mentor Relationships and Gifted Learners**
Sandra L. Berger

E487 **Nurturing Giftedness in Young Children**
Wendy C. Roedell

E488 **Helping Gifted Students with Stress Management**
Leslie S. Kaplan

E489 **Helping Adolescents Adjust to Giftedness**
Thomas M. Buescher & Sharon J. Higham

E490 **College Planning for Gifted and Talented Youth**
Sandra L. Berger

E491 **Discovering Interests and Talents Through Summer Experiences**
Cindy Ware

E492 **Career Planning for Gifted and Talented Youth**
Barbara Kerr

E493 **Fostering the Postsecondary Aspirations of Gifted Urban Minority Students**
Margaret E. McIntosh & M. Jean Greenlaw

E494 **Supporting Gifted Education Through Advocacy**
Sandra L. Berger

E495 **Readings & Resources for Parents and Teachers of Gifted Children**

E464 **Meeting the Needs of Able Learners Through Flexible Pacing**

This publication was prepared with funding from the U.S. Department of Education, Office of Educational Research and Improvement, under contract no. RI88062007. The opinions expressed in this report do not necessarily reflect the positions or policies of OERI or the Department of Education.

ERIC Clearinghouse on Handicapped and Gifted Children
THE COUNCIL FOR EXCEPTIONAL CHILDREN
1920 Association Drive • Reston, VA 22091-1589
FAX (703) 264-9494

ERIC Digest

DIGEST #E476 EC–90

GIFTEDNESS AND THE GIFTED: WHAT'S IT ALL ABOUT?

What Does Giftedness Mean?

Many parents say, "I know what giftedness is, but I can't put it into words." This generally is followed by reference to a particular child who seems to manifest gifted behaviors. Unfortunately, there are many misconceptions of the term, all of which become deterrents to understanding and catering to the needs of children identified as gifted. Let's study the following statement:

> Giftedness is that precious endowment of potentially outstanding abilities which allows a person to interact with the environment with remarkably high levels of achievement and creativity.

This statement is the product of a small neighborhood group of parents who took a comprehensive view of the concept of giftedness before focusing on any attempt to define the gifted child. They thought, first, that within giftedness is a quality of innateness (or, as they said, "a gift conferred by nature"), and second, that one's environment is the arena in which the gifts come into play and develop. Therefore, they reasoned that the "remarkably high levels of achievement and creativity" result from a continuous and functional interaction between a person's inherent and acquired abilities and characteristics.

We often hear statements such as "She's a born artist," or "He's a natural athlete," or conversely, "Success never came easy for me; I had to learn the hard way," or "He's a self-made man." Those who manifest giftedness obviously have some inherent or inborn factors plus the motivation and stamina to learn from and cope with the rigors of living.

We suggest that you wrestle with the term in your own way, looking at giftedness as a concept that demands the investment of time, money, and energy. This will help you discuss giftedness more meaningfully with other parents, school administrators, school board members, or anyone who needs to understand the dynamics of the term.

Who Are Gifted Children?

Former U.S. Commissioner of Education Sidney P. Marland, Jr., in his August 1971 report to Congress, stated, "Gifted and talented children are those identified by professionally qualified persons who by virtue of outstanding abilities are capable of high performance. These are children who require differentiated educational programs and/or services beyond those normally provided by the regular school program in order to realize their contribution to self and society."

The same report continued:

> Children capable of high performance include those with demonstrated achievement and/or potential ability in any of the following areas, singly or in combination:
>
> 1. general intellectual ability
> 2. specific academic aptitude
> 3. creative or productive thinking
> 4. leadership ability
> 5. visual or performing arts
> 6. psychomotor ability

Using a broad definition of giftedness, a school system could expect to identify 10% to 15% or more of its student population as gifted and talented. A brief description of each area of giftedness or talent as defined by the Office of Gifted and Talented will help you understand this definition.

General intellectual ability or talent. Laypersons and educators alike usually define this in terms of a high intelligence test score—usually two standard deviations above the mean—on individual or group measures. Parents and teachers often recognize students with general intellectual talent by their wide-ranging fund of general information and high levels of vocabulary, memory, abstract word knowledge, and abstract reasoning.

Specific academic aptitude or talent. Students with specific academic aptitudes are identified by their outstanding performance on an achievement or aptitude test in one area such as mathematics or language arts. The organizers of talent searches sponsored by a number of universities and colleges identify students with specific academic aptitude who score at the 97th percentile or higher on standard achievement tests and then give these students the Scholastic Aptitude Test (SAT). Remarkably large numbers of students score at these high levels.

Creative and productive thinking. This is the ability to produce new ideas by bringing together elements usually thought of as independent or dissimilar—the aptitude for developing new meanings that have social value. Characteristics of creative and productive students include openness to experience, setting personal standards for evaluation, ability to play with ideas, willingness to take risks, preference for complexity, tolerance for ambiguity, positive self-image, and the ability to become submerged in a task. Creative and productive students are identified through the use of tests such as the Torrance Test of Creative Thinking or through demonstrated creative performance.

Leadership ability. Leadership can be defined as the ability to direct individuals or groups to a common decision or action. Students who demonstrate giftedness in leadership ability use group skills and negotiate in difficult situations. Many teachers recognize leadership through a student's keen interest and skill in problem solving. Leadership characteristics include self-confidence, responsibility, cooperation, a tendency to dominate, and the ability to adapt readily to new situations. These students can be identified through instruments such as the Fundamental Interpersonal Relations Orientation Behavior (FIRO-B).

Visual and performing arts. Gifted students with talent in the arts demonstrate special talents in visual art, music, dance, drama, or other related studies. These students can be identified by using task descriptions such as the Creative Products Scales, which were developed for the Detroit Public Schools by Patrick Byrons and Beverly Ness Parke of Wayne State University.

Psychomotor ability. This involves kinesthetic motor abilities such as practical, spatial, mechanical, and physical skills. It is seldom used as a criterion in gifted programs.

Other Viewpoints

Robert Sternberg and Robert Wagner (1982) have suggested that giftedness is a kind of mental self-management. The mental management of one's life in a constructive, purposeful way has three basic elements: adapting to environments, selecting new environments, and shaping environments. According to Sternberg and Wagner, the key psychological basis of intellectual giftedness resides in insight skills that include three main processes: (1) separating relevant from irrelevant information, (2) combining isolated pieces of information into a unified whole, and (3) relating newly acquired information to information acquired in the past.

Sternberg and Wagner emphasized problem-solving abilities and viewed the gifted student as one who processes information rapidly and uses insight abilities. Howard Gardner (1983) also suggested a concept of multiple intelligences, stating that there are several ways of viewing the world: linguistic, logical/mathematical, spatial, musical, bodily-kinesthetic, interpersonal, and intrapersonal intelligence.

Joseph Renzulli (1986) stated that gifted behavior reflects an interaction among three basic clusters of human traits: above-average general and/or specific abilities, high levels of task commitment (motivation), and high levels of creativity. According to Renzulli, gifted and talented children are those who possess or are capable of developing this composite of traits and applying them to any potentially valuable area of human performance.

A good source for pursuing the characteristics of giftedness in depth is Barbara Clark's informative book, *Growing Up Gifted* (1988), which presents an exhaustive list of characteristics under five major headings: Cognitive (thinking), Affective (feeling), Physical, Intuitive, and Societal.

No one child manifests all of the attributes described by researchers and the Office of Gifted and Talented. Nevertheless, it is important for parents to be fully aware of the ways in which giftedness can be recognized. Often, certain behaviors such as constantly having unique solutions to problems, asking endless, probing questions, or even the masterful manipulation of others are regarded by parents as unnatural, unlike other children, and trying to parental patience. Therefore, our recommendation is to study the characteristics of gifted children with an open mind. Do not use the list as a scorecard; simply discuss and appreciate the characteristics and let common sense, coupled with love, take over.

Some General Characteristics

(These are typical factors stressed by educational authorities as being indicative of giftedness. Obviously, no child is outstanding in all characteristics.)

1. Shows superior reasoning powers and marked ability to handle ideas; can generalize readily from specific facts and can see subtle relationships; has outstanding problem-solving ability.

2. Shows persistent intellectual curiosity; asks searching questions; shows exceptional interest in the nature of man and the universe.
3. Has a wide range of interests, often of an intellectual kind; develops one or more interests to considerable depth.
4. Is markedly superior in quality and quantity of written and/or spoken vocabulary; is interested in the subtleties of words and their uses.
5. Reads avidly and absorbs books well beyond his or her years.
6. Learns quickly and easily and retains what is learned; recalls important details, concepts and principles; comprehends readily.
7. Shows insight into arithmetical problems that require careful reasoning and grasps mathematical concepts readily.
8. Shows creative ability or imaginative expression in such things as music, art, dance, drama; shows sensitivity and finesse in rhythm, movement, and bodily control.
9. Sustains concentration for lengthy periods and shows outstanding responsibility and independence in classroom work.
10. Sets realistically high standards for self; is self-critical in evaluating and correcting his or her own efforts.
11. Shows initiative and originality in intellectual work; shows flexibility in thinking and considers problems from a number of viewpoints.
12. Observes keenly and is responsive to new ideas.
13. Shows social poise and an ability to communicate with adults in a mature way.
14. Gets excitement and pleasure from intellectual challenge; shows an alert and subtle sense of humor.

A Quick Look at Intelligence

The attempts to define giftedness refer in one way or another to so-called "inborn" attributes, which, for lack of a better term, are called *intelligence*. Significant efforts have been made to measure intelligence, but, because the concept is elusive, test constructors simply aim at testing what they feel are typical manifestations of intelligence in behaviors. Perhaps a little rhyme used for years by kindergarten teachers will help to describe this elusiveness:

> *Nobody sees the wind; neither you, nor I. But when the trees bow down their heads, the wind is passing by.*

Just as we cannot actually see the wind, we cannot find, operate on, or transplant intelligence. Yet we see the working or manifestations of intelligence in the behaviors of people.

The man-made computation of an intelligence quotient, or IQ, is probably the best general indicator of intelligence, but in no way is it infallible. All too often, a child's IQ is misunderstood and becomes a lifelong "handle." However, given our present knowledge, the results of a standardized intelligence test administered by a competent examiner provide as reliable an indication as possible of a person's potential ability to learn and cope. Until some scientific breakthrough is developed, we will rely on the IQ score to approximate how mentally gifted a person may be.

The nature of intelligence was once explained in this way:

If intelligence were something you could see, touch, and weigh, it would be something like a can of paint. The genius would have a gallon, the person who has severe retardation, only half a pint. The rest of us would have varying amounts between these extremes, with the majority possessing about two quarts. This is clear enough, but it is only half the story.

Each can of paint contains the same five or six ingredients in varying amounts. One can may be "long" on oil, another on pigment, a third on turpentine, the fourth on gloss or drying agent. So, although two cans contain the same amount of paint, the paint may be of vastly different consistency, color, or character.

Good painters want to know the elements in the paint with which they are working. Parents and teachers want to know the kinds of intelligence with which they are working. What are the special qualities of this intelligence? In what proportions are these elements present? Most important, how can these elements be used?

We recommend that you do not become bogged down in probing into the concept of intelligence. Its intricacies and mysteries are fascinating, but it must not become a convenient synonym for giftedness. An excellent coverage of the concept of intelligence is provided by Barbara Clark in *Growing Up Gifted.*

The exciting advances in research on brain functioning, coupled with the realization that a child's intelligence is only one key to understanding giftedness, have underscored the importance of studying *all* characteristics of the gifted child.

The Gifted Child Is Called Many Things

Often parents are confused by the many terms used in referring to the gifted child. Many parents hear these terms used—sometimes adopting them in their own conversations—without knowing whether they are synonymous with "gifted" or are just words that help to explain the concept.

The term *genius* used to be widely employed but now it is reserved for reference only to the phenomenally gifted person. *Talented* tends to be used when referring to a particular strength or ability of a person. Thought should be given to whether the talent is truly a gift or is, rather, an ability that has become a highly developed skill through practice. It is safe to say that generally the person identified as gifted is one who has multiple talents of a high order.

The terms *prodigy* and *precocious* are most commonly used when a child evidences a decidedly advanced degree of skill in a particular endeavor at a very early age, as well as a very disciplined type of motivation. It is interesting to note that the derivation of the words *precocious* or *precocity* comes from the ancient Greek word for "precooked" and connotes the idea of early ripening.

Superior is a comparative term. When a child is classified as "superior," we would like to know to whom, or what group, he or she is superior, and to what degree. A child may be markedly superior to the majority of children in a specific mental ability such as verbal comprehension and at the same time be equally inferior in spatial relations or memory. The looseness of the term limits its usage in most cases to broad generalization. A *high IQ* may be anything, depending on what it is higher than.

Rapid learner is a helpful term in understanding giftedness, because it is a distinct characteristic manifested by the identified gifted child.

The term *exceptional* is appropriate when referring to the gifted child as being different in the characteristics listed earlier.

At this point it is important to bring into focus a term that continues to be tossed around altogether too loosely in reference to education of the gifted. That term is *elitism.*

By derivation, *elite* means the choice, or best, or superior part of a body or class of persons. However, time and an overemphasis on egalitarianism have imparted a negative connotation to the word, implying snobbishness, selectivity, and unfair special attention.

But in fact, gifted children are elite in the same way that anyone becomes a champion, a recordholder, a soloist, an inventor, or a leader in important realms of human endeavor. Therefore, their parents have a distinct responsibility to challenge those who cry "elitism" and explain to them the true meaning of the term.

The only reason for mentioning these terms—and there are many more—is to caution parents that semantics and language usage can be tricky and confusing. Thus, *your* personal understanding and application of the term *gifted* becomes doubly important.

References

Clark, B. (1988). *Growing up gifted* (3rd ed.). Columbus, OH: Charles E. Merrill.

Gardner, H. (1983). *Frames of mind.* New York: Bantam Books.

Marland, S. (1972). *Education of the gifted and talented.* Report to Congress. Washington, DC: U. S. Government Printing Office.

Renzulli, J. (1986). The three ring conception of giftedness: A developmental model for creative productivity. In R. J. Sternberg & J. E. Davidson (Eds.), *Conceptions of giftedness* (pp.53–92). New York: Cambridge University Press.

Sternberg, R., & Wagner, R. (1982). A revolutionary look at intelligence. *Gifted Children Newsletter, 3,* 11.

Adapted from D. W. Russell, D. G. Hayes, & L. B. Dockery, *My Child Is Gifted! Now What Do I Do?* (2nd ed. 1988), North Carolina Association for the Gifted and Talented, Inc., P.O. Box 5394, Winston-Salem, NC 27113-5394; and D. Sisk, The State of Gifted Education: Toward a Bright Future, *Music Educators Journal,* (March 1990), pp. 35–39. Adapted by permission.

This publication was prepared with funding from the U.S. Department of Education, Office of Educational Research and Improvement, under contract no. RI88062007. The opinions expressed in this report do not necessarily reflect the positions or policies of OERI or the Department of Education.

ERIC
Clearinghouse on Handicapped and Gifted Children
THE COUNCIL FOR EXCEPTIONAL CHILDREN
1920 Association Drive • Reston, VA 22091-1589
FAX (703) 264-9494
ERIC Digest

DIGEST #E477
EC–90

HELPING YOUR HIGHLY GIFTED CHILD

Most parents greet the discovery that their child is not merely gifted but *highly* or *profoundly* gifted with a combination of pride, excitement, and fear. They may set out to find experts or books to help them cope with raising such a child, only to find that there are no real experts, only a couple of books, and very little understanding of extreme intellectual potential and how to develop it. This digest deals with some areas of concern and provides a few practical suggestions based on the experience of other parents and the modest amount of research available.

Differences

To understand highly gifted children it is essential to realize that, although they are children with the same basic needs as other children, they are very different. Adults cannot ignore or gloss over their differences without doing serious damage to these children, for the differences will not go away or be outgrown. They affect almost every aspect of these children's intellectual and emotional lives.

A microscope analogy is one useful way of understanding extreme intelligence. If we say that all people look at the world through a lens, with some lenses cloudy or distorted, some clear, and some magnified, we might say that gifted individuals view the world through a microscope lens and highly gifted individuals view it through an electron microscope. They see ordinary things in very different ways and often see what others simply cannot see. Although there are advantages to this heightened perception, there are disadvantages as well.

Since many children eventually become aware of being different, it is important to prepare yourself for your child's reactions. When your child's giftedness has been identified, you might open a discussion using the microscope analogy. If you are concerned that such a discussion will promote arrogance, be sure to let the child know that unusual gifts, like hair and eye color, are not earned. It is neither admirable nor contemptible to be highly gifted. It is what one does with one's abilities that is important.

A United Front

As in most other aspects of parenting, it is important for both parents (or the adults who bear primary responsibility for raising the child) to agree on some basic issues regarding the child's potential. Some parents of exceptionally gifted children were themselves gifted or exceptionally gifted children. If they did not learn to accept and understand their own giftedness, they may find it difficult to accept their child's unusual capacities. Raising a highly gifted child may help parents come to terms with many difficult aspects of their own lives, but it helps if they focus first on the needs of the child and come to an agreement about how to meet them.

What Highly Gifted Children Need

Exceptionally gifted children have two primary needs. First, they need to feel comfortable with themselves and with the differences that simultaneously open possibilities and create difficulty. Second, they need to develop their astonishing potential. There is a strong internal drive to develop one's abilities. Thwarting that drive may lead to crippling emotional damage. Throughout the parenting years, it is wise to keep in mind that the healthiest long-term goal is not necessarily a child who gains fame, fortune, and a Nobel Prize, but one who becomes a comfortable adult and uses gifts productively.

The Early Years

Before your child begins formal schooling, differences can be handled by your willingness to follow the child's lead and meet needs as they arise. It is possible and important to treat an infant's or toddler's precocity with a degree of normalcy. For example, a 2-year-old who prefers and plays appropriately with toys designed for 6-year-olds should be given those toys. The 3-year-old who reads should be given books. The child who speaks very early and with a sophisticated vocabulary should be spoken to in kind.

Public Attitudes

Even when parents can take precocious achievements in stride, friends, family, and strangers may not. Unthinking people will comment (often loudly and in front of the child) that a 2- or 3-year-old who sits in the grocery cart reading packages aloud is a phenomenon.

It may be surprisingly difficult to avoid letting parental pride lure you into encouraging your child to "perform" in public. Keep in mind the goal of making the child as comfortable as possible with individual differences. The more casually you accept unusual early accomplishments, the more your child will be able to see those accomplishments as normal. Later, when gifts are no longer quite as noticeable, the child will not feel that what made him or her valuable has somehow been lost.

Multiple Ages

Highly gifted children are many ages simultaneously. A 5-year-old may read like a 7-year-old, play chess like a 12-year-old, talk like a 13-year-old, and share toys like a 2-year-old. A child may move with lightning speed from a reasoned discussion of the reasons for taking turns on the playground to a full-scale temper tantrum when not allowed to be first on the swing. You can help yourself maneuver among the child's ages by reading about developmental norms (Gesell is a good guide) so that you are ready for (and avoid punishing) behavior that, although it seems childish in a precocious child, is absolutely age appropriate.

School

If your 9-month-old begins speaking in full sentences, you probably will not tell the child to stop and wait till other 9-month-olds catch up. You would not limit such a child to using nouns because that is as much speech as most 9-month-olds can handle. However, in public or private school that may be the approach some educators use.

It is important to realize that they are not purposely setting out to keep your child from learning, although that might be the effect. Many educators have never knowingly dealt with a highly gifted child. They do not recognize them, and they do not know how to handle them. Some educators base teaching methods on developmental norms that are inappropriate for highly gifted children. Although they may be willing to make an effort to accommodate these youngsters, they may lack sufficient information or experience and not know what type of effort to make.

When a child enters school already able to do what the teacher intends to teach, there is seldom a variety of mechanisms for teaching that child something else. Even if there were a way to provide time, attention, and an appropriate curriculum, it would be necessary for the teacher to use different teaching methods. Highly gifted children learn not only faster than others, but also differently. Standard teaching methods take complex subjects and break them into small, simple bits presented one at a time. Highly gifted minds can consume large amounts of information in a single gulp, and they thrive on complexity. Giving these children simple bits of information is like feeding an elephant one blade of grass at a time—he will starve before he even realizes that anyone is trying to feed him.

When forced to work with the methods and pace of a typical school, highly gifted children may look not *more* capable than their peers, but *less* capable. Many of their normal characteristics add to this problem. Their handwriting might be very messy because their hands do not keep pace with their quick minds. Many spell poorly because they read for comprehension and do not see the words as collections of separate letters. When they try to "sound out" a word, their logical spelling of an illogical language results in errors. Most have difficulty with rote memorization, a standard learning method in the early grades.

Lack of Fit

The difficulty with highly gifted children in school may be summarized in three words: *They don't fit.* Almost all American schools organize groups of children by age. As we have seen, the highly gifted child is many ages. The child's intellectual needs might be years ahead of same-age peers, although the gulf may be larger in some subject areas than in others.

Imagine 6-year-old Rachel. She reads on a 12th-grade level, although her comprehension is "only" that of a 7th grader. She does multiplication and division, understands fractions and decimals, but counts on her fingers because she has never memorized addition and subtraction facts or multiplication tables. Her favorite interests at home are paleontology and astronomy; at school her favorite interests are lunch and recess. She collects stamps and plays chess. Although she can concentrate at her telescope for hours at a time, she cannot sit still when she is bored. She cries easily, loses her temper often, bosses other children when they "don't do it right," and cannot keep track of her personal belongings. She has a sophisticated sense of humor that disarms adults but is not understood by other children.

Putting Rachel into a regular first grade without paying special attention to her differences is a recipe for social, emotional, and educational disaster. Even if a gifted program is available (they commonly begin in third or fourth grade), it is unlikely to meet her extreme needs.

Educating a highly gifted child in school is like clothing a 6X child in a store where the largest available garment is a size 3 (or with a gifted program, a 3X). Parents have to resort to alterations or individual tailoring of whatever kind they can manage.

In dealing with school issues, it is important to remember that you know more about your child than anyone else. Your knowledge, information, and instincts are useful and important, and they should be recognized in designing a school program. Your child needs *individual attention*. Anything else may be directly and seriously harmful.

There is no ideal school pattern for the highly gifted child. However, when normal school patterns lead to difficulty, it is important to obtain real differentiation.

Acceleration

Because highly gifted children may begin school already knowing much of the material covered in early grades and because they learn quickly, some type of acceleration is necessary. For some children and in some situations, grade skipping is the best choice. Placing a child with older children who share interests may be socially and intellectually beneficial and result in a more appropriate curriculum. It is also a simple and economical solution for the school. Some children begin school early; others skip several early grades; others skip whole educational levels, such as junior high or even high school. Skipping a single year is seldom helpful, because the difference between one grade level and the next is too small. Grade skipping is not without problems, but allowing highly gifted children to stay in a class that meets few if any of their needs may do serious and long-term damage.

Another type of acceleration is subject matter acceleration. A child may take mathematics with a class four grades ahead, reading with a class two grades ahead, and physical education with age peers. This type of acceleration takes into consideration the varying developmental ages of the highly gifted child. For further flexibility, you might consider evening classes or weekend classes at a high school or college and ask the school to excuse coverage of those subjects in regular classes. A child might go to school with age mates only in the morning or only in the afternoon. This method calls for school and parent flexibility and may lead to logistical problems with scheduling and transportation, but it is often more satisfactory than grade skipping, because the child associates at least part of the time with age peers.

When the School Will Not Change

When parents approach teachers and administrators with information and documentation, in a spirit of cooperation rather than confrontation, offering suggestions and help rather than attacking, some positive changes in normal methods usually result. Sometimes, however, schools refuse to make changes for one child. When this happens, parents have few choices. One is to move to a school system that *will* make changes. Another is home schooling.

For many highly gifted children home schooling is a nearly ideal solution to the problem of fit. Instead of laboriously altering ready-made programs, parents can tailor an education precisely to the child's needs. Clubs, sports, scouting, and other activities supply social interaction with other children while parents serve as teachers or facilitators or engage tutors or mentors in various subject areas.

Home schooling is seldom an easy choice. In some districts it is either illegal or beset with regulations that make it almost as rigid as classroom schooling. When both parents or the single resident parent must work, it may be impossible. Some parents and children find the level of togetherness stifling, while others cannot avoid pushing and demanding too much. However, home schooling may be a positive choice for many families. Many children move surprisingly smoothly from home schooling in the early years into high school or college when their intellectual needs outgrow the home environment. One of the major benefits of education at home is the maintenance of self-esteem, which is highly problematic in a school environment.

Social/Emotional Needs

In the movie *E.T.* there was something heartrending in the small alien's attempts to "phone home," in his constant longing for others of his kind despite the loving concern of the family who cared for him. Highly gifted children endure some of that same pain. It is hard for them to find kindred spirits, hard for them to feel they fit into the only world they know.

Highly gifted children may have trouble establishing fulfilling friendships with people of their own age when there are few or no other highly gifted children with whom to interact. As a high school student told his mother, "I can be that part of myself that is like my classmates, and we get along fine. But there's no one I can share the rest of me with, no one who understands what means the most to me." For most highly gifted children, social relationships with age peers necessitate a constant monitoring of thoughts, words, and behavior.

One of the greatest benefits of the talent searches proliferating in colleges across the country is the chance for highly gifted children to spend time with others like themselves. For 3 weeks in the summer, children who qualify (by scoring high enough on the SAT or ACT in the seventh grade or earlier) attend class on a college campus with other highly gifted children. Rather than feeling like oddballs, they suddenly feel normal. Lifelong friendships may form in a matter of days. Many summer program participants consider the social interaction as valuable as the classes.

What else can you do to help highly gifted children find friends? It helps children to understand that there are different types of friends. They may play baseball, ride bikes, and watch TV with one person; talk about books or movies with another; and play chess or discuss astronomy with another. Some of these friends may be their own age, some may be younger or, more often, older. Only in school is it suggested that people must be within a few months of each other in age to form meaningful relationships.

Conclusion

Raising a highly gifted child may be ecstasy, agony, and everything between. Adults must perform almost impossible feats of balance—supporting a child's gifts without pushing, valuing without overinvesting, championing without taking over. It is costly, physically and emotionally draining, and intellectually demanding. In the first flush of pride, few parents realize that their task is in many ways similar to the task faced by parents of a child with severe handicaps. Our world does not accommodate differences easily, and it matters little whether the difference is perceived to be a deficit or an overabundance.

We have covered only a few issues in this space, but the most important help you can give highly gifted children can be expressed in a single sentence: Give them a safe home, a refuge where they feel love and genuine acceptance, even of their differences. As adults with a safe home in their background, they can put together lives of productivity and fulfillment.

Resources

Boyer, A. (1989). Surviving the blessing: Parenting the highly gifted child. *Understanding Our Gifted, 1*(3), 5, 17, 20–21.

Dirks, J. (1979). Parents' reactions to identification of the gifted. *Roeper Review, 2*(2), 9–10.

Feldman, D. H., with Goldsmith, L. T. (1986). *Nature's gambit: Child prodigies and the development of human potential.* New York: Basic Books.

Grost, A. (1970). *Genius in residence.* Englewood Cliffs, NJ: Prentice-Hall.

Higham, S., & Buescher, T. M. (1987). What young gifted adolescents understand about feeling different. In T. M. Buescher (Ed.), *Understanding gifted and talented adolescents* (pp. 26–30). Evanston, IL: The Center for Talent Development, Northwestern University.

Hollingworth, L. S. (1942). *Children above 180 IQ Stanford-Binet: Origin and development.* Yonkers-on-Hudson, NY: World Book.

Janos, P. M., Marwood, K. A., & Robinson, N. M. (1985). Friendship patterns in highly intelligent children. *Roeper Review, 8* (1), 46–49.

Janos, P. M., & Robinson, N. M. (1985). The performance of students in a program of radical acceleration at the university level. *Gifted Child Quarterly, 29*(4), 175–179.

Kearney, K. (1989). Homeschooling gifted children. *Understanding Our Gifted, 1*(3), 1, 12–13, 15–16.

Kline, B. E., & Meckstroth, E. A. (1985). Understanding and encouraging the exceptionally gifted. *Roeper Review, 8* (1), 24–30.

Lewis, G. (1984). Alternatives to acceleration for the highly gifted child. *Roeper Review, 6*(3), 133–136.

Powell, P. M., & Haden, T. (1987). The intellectual and psychosocial nature of extreme giftedness. *Roeper Review, 6*(3), 127–130.

Silverman, L. K. (1989). The highly gifted. In J. F. Feldhusen, J. VanTassel-Baska, & K. R. Seeley (Eds.), *Excellence in educating the gifted* (pp. 71–83). Denver: Love.

Silverman, L. K., & Kearney, K. (1989). Parents of the extraordinarily gifted. *Advanced Development, 1,* 41–56.

Tolan, S. S. (1989). Special problems of young highly gifted children. *Understanding Our Gifted, 1*(5), 1, 7–10.

Tolan, S. S. (1985, January). Stop accepting, start demanding! *Gifted Child Monthly 6*(1), 6.

Tolan, S. S. (1985 Nov./Dec.). Stuck in another dimension: The exceptionally gifted child in school. *G/C/T, 41,* 22–26.

Webb. J. T., Meckstroth, E. A., & Tolan, S. S. (1982). *Guiding the gifted child.* Columbus, OH: Ohio Psychology Publishing Co.

©Copyright 1989, Stephanie S. Tolan. Properly attributed, this material may be reproduced. Stephanie Tolan is a noted author of children's books and one of the authors of *Guiding the Gifted Child.*

This publication was prepared with funding from the U.S. Department of Education, Office of Educational Research and Improvement, under contract no. RI88062007. The opinions expressed in this report do not necessarily reflect the positions or policies of OERI or the Department of Education.

ERIC
Clearinghouse on Handicapped and Gifted Children
THE COUNCIL FOR EXCEPTIONAL CHILDREN
1920 Association Drive • Reston, VA 22091-1589
FAX (703) 264-9494

ERIC Digest

DIGEST #E478 **EC–90**

UNDERACHIEVING GIFTED STUDENTS

There is perhaps no situation more frustrating for parents or teachers than living or working with children who do not perform as well academically as their potential indicates they can. These children are labeled as *underachievers*, yet few people agree on exactly what this term means. At what point does underachievement end and achievement begin? Is a gifted student who is failing mathematics while doing superior work in reading an underachiever? Does underachievement occur suddenly, or is it better defined as a series of poor performances over an extended time period? Certainly, the phenomenon of underachievement is as complex and multifaceted as the children to whom this label has been applied.

Definition of Underachievement

Early researchers (Raph, Goldberg, & Passow, 1966) and some recent authors (Davis & Rimm, 1989) have defined underachievement in terms of a discrepancy between a child's school performance and some ability index such as an IQ score. These definitions, although they seem clear and succinct, provide little insight to parents and teachers who wish to address this problem with individual students. A better way to define underachievement is to consider its various components.

Underachievement, first and foremost, is a behavior, and as such it can change over time. Often, underachievement is seen as a problem of attitude or work habits. However, neither habits nor attitude can be modified as directly as behaviors. Thus, referring to "underachieving behaviors" pinpoints those aspects of children's lives which they are most able to alter.

Underachievement is content and situation specific. Gifted children who do not succeed in school are often successful in outside activities such as sports, social occasions, and after-school jobs. Even a child who does poorly in most school subjects may display a talent or interest in at least *one* school subject. Thus, labeling a child as an "underachiever" disregards any positive outcomes or behaviors that child displays. It is better to label the *behaviors* than the child (e.g., the child is "underachieving in math and language arts" rather than an "underachieving student").

Underachievement is in the eyes of the beholder. For some students (and teachers and parents), as long as a passing grade is attained, there is no underachievement. "After all," this group would say, "A C is an average grade." To others, a grade of B+ could constitute underachievement if the student in question were expected to get an A. Recognizing the idiosyncratic nature of what constitutes success and failure is the first step toward understanding underachieving behaviors in students.

Underachievement is tied intimately to self-concept development. Children who learn to see themselves in terms of failure eventually begin to place self-imposed limits on what is possible. Any academic successes are written off as "flukes," while low grades serve to reinforce negative self-perceptions. This self-deprecating attitude often results in comments such as "Why should I even try? I'm just going to fail anyway," or "Even if I do succeed, people will say it's because I cheated." The end product is a low self-concept, with students perceiving themselves as weak in academics. Under this assumption, their initiative to change or to accept a challenge is limited.

Strategies to Reverse Patterns of Underachievement

Luckily, it is easier to reverse patterns of underachieving behavior than it is to define the term *underachievement*.

Whitmore (1980) described three types of strategies that she found effective in working with underachieving behaviors in students:

1. *Supportive strategies.* Classroom techniques and designs that allow students to feel they are part of a "family," versus a "factory," include methods such as holding class meetings to discuss student concerns; designing curriculum ac-

tivities based on the needs and interests of the children; and allowing students to bypass assignments on subjects in which they have previously shown competency.

2. *Intrinsic strategies.* These strategies incorporate the idea that students' self-concepts as learners are tied closely to their desire to achieve academically (Purkey & Novak, 1984). Thus, a classroom that invites positive attitudes is likely to encourage achievement. In classrooms of this type, teachers encourage attempts, not just successes; they value student input in creating classroom rules and responsibilities; and they allow students to evaluate their own work before receiving a grade from the teacher.
3. *Remedial strategies.* Teachers who are effective in reversing underachieving behaviors recognize that students are not perfect—that each child has specific strengths and weaknesses as well as social, emotional, and intellectual needs. With remedial strategies, students are given chances to excel in their areas of strength and interest while opportunities are provided to improve in specific areas of learning deficiencies. This remediation is done in a "safe" environment in which mistakes are considered a part of learning for everyone, including the teacher.

The key to eventual success lies in the willingness of parents and teachers to encourage students whenever their performance or attitude shifts (even slightly) in a positive direction.

Participation in Gifted Programs

Students who underachieve in some aspect of school performance, but whose talents exceed the bounds of what is generally covered in the standard curriculum, have a right to an education that matches their potential. To be sure, a program for gifted students may need to alter its structure or content to meet these students' specific learning needs, but this is preferable to denying gifted children access to educational services that are the most accommodating to their abilities.

Role of the Family

The following are some broad guidelines—representing many viewpoints—for strategies to prevent or reverse underachieving behavior.

Supportive strategies. Gifted children thrive in a mutually respectful, nonauthoritarian, flexible, questioning atmosphere. They need reasonable rules and guidelines, strong support and encouragement, consistently positive feedback, and help to accept some limitations—their own as well as those of others. Although these principles are appropriate for all children, parents of gifted children, believing that advanced intellectual ability also means advanced social and emotional skills, may allow their children excessive decision-making power before they have the wisdom and experience to handle such responsibility (Rimm, 1986).

Gifted youngsters need adults who are willing to listen to their questions without comment. Some questions merely preface their own opinions, and quick answers prevent them from using adults as a sounding board. When problem solving is appropriate, offer a solution and encourage students to come up with their own answers and criteria for choosing the best solution. Listen carefully. Show genuine enthusiasm about students' observations, interests, activities, and goals. Be sensitive to problems, but avoid transmitting unrealistic or conflicting expectations and solving problems a student is capable of managing.

Provide students with a wide variety of opportunities for success, a sense of accomplishment, and a belief in themselves. Encourage them to volunteer to help others as an avenue for developing tolerance, empathy, understanding, and acceptance of human limitations. Above all, guide them toward activities and goals that reflect *their* values, interests, and needs, not just yours. Finally, reserve some time to have fun, to be silly, to share daily activities. Like all youngsters, gifted children need to feel connected to people who are consistently supportive (Webb, Meckstroth, & Tolan, 1982).

Intrinsic strategies. Whether or not a gifted youngster uses exceptional ability in constructive ways depends, in part, on self-acceptance and self-concept. According to Halsted (1988), "an intellectually gifted child will not be happy [and] complete until he is using intellectual ability at a level approaching full capacity.... It is important that parents and teachers see intellectual development as a requirement for these children, and not merely as an interest, a flair, or a phase they will outgrow" (p. 24).

Providing an early and appropriate educational environment can stimulate an early love for learning. A young, curious student may easily become "turned off" if the educational environment is not stimulating; class placement and teaching approaches are inappropriate; the child has ineffective teachers; or assignments are consistently too difficult or too easy. The gifted youngster's ability to define and solve problems in many ways (often described as *fluency of innovative ideas* or *divergent thinking ability*) may not be compatible with traditional gifted education programs or specific classroom requirements, in part because many gifted students are identified through achievement test scores (Torrance, 1977). According to Linda Silverman (1989), Director of the Gifted Child Development Center in Denver, Colorado, a student's learning style can influence academic achievement. She contends that gifted underachievers often have advanced visual-spatial ability but underdeveloped sequencing skills; thus they have difficulty learning such subjects as phonics, spelling, foreign languages, and mathematics facts in the way in which these subjects are usually taught (Silverman, 1989a, 1989b). Such students often can be helped by knowledgeable adults to expand their learning styles, but they also need an environment that is compatible with their preferred ways of learning. Older students can participate in pressure-free, noncompetitive summer activities that provide a wide variety of educational opportunities, including in-depth exploration, hands-on learning, and mentor relationships (Berger, 1989).

Some students are more interested in learning than in working for grades. Such students might spend hours on a project that is unrelated to academic classes and fail to turn in required work. They should be strongly encouraged to pursue their interests, particularly since those interests may lead to career decisions and life-long passions. At the same time, they should be reminded that teachers may be unsympathetic when required work is incomplete. Early career guidance emphasizing creative problem solving, decision making, and setting short- and long-term goals often helps them to complete required assignments, pass high school courses, and plan for college (Berger, 1989). Providing real-world experiences in an area of potential career interest may also provide inspiration and motivation toward academic achievement.

Praise versus encouragement. Overemphasis on achievement or outcomes rather than a child's efforts, involvement, and desire to learn about topics of interest is a common parental pitfall. The line between pressure and encouragement is subtle but important. Pressure to perform emphasizes outcomes such as winning awards and getting A's, for which the student is highly praised. Encouragement emphasizes effort, the process used to achieve, steps taken toward accomplishing a goal, and improvement. It leaves appraisal and valuation to the youngster. Underachieving gifted students may be thought of as discouraged individuals who need encouragement but tend to reject praise as artificial or inauthentic (Kaufmann, 1987). Listen carefully to yourself. Tell your children when you are proud of their efforts.

Remedial strategies. Dinkmeyer and Losoncy (1980) have cautioned parents to avoid discouraging their children by domination, insensitivity, silence, or intimidation. Discouraging comments such as "If you're so gifted, why did you get a D in _____?" or "I've given you everything; why are you so _____?" are never effective. Constant competition may also lead to underachievement, especially when a child consistently feels like either a winner or a loser. Avoid comparing children with others. Show them how to function in competition and how to recover after losses.

Study-skills courses, time-management classes, or special tutoring may be ineffective if a student is a long-term underachiever. This approach will work only if the student is willing and eager, the teacher is chosen carefully, and the course is supplemented by additional strategies designed to help the student. On the other hand, special tutoring may help a concerned student who is experiencing short-term academic difficulty. In general, special tutoring for a gifted student is most helpful when the tutor is carefully chosen to match the interests and learning style of the student. Broad-ranged study-skills courses or tutors who do not understand the student may do more harm than good.

Conclusion

Some students, particularly those who are highly capable and participate in a variety of activities, appear to be high achievers when learning in a highly structured academic environment, but they are at risk of underachieving if they cannot establish priorities, focus on a selected number of activities, and set long-term goals. On the other hand, some students appear to be underachievers but are not uncomfortable or discouraged. They may be quite discontent in middle or secondary school (in part because of the organization and structure), but happy and successful when learning in an environment with a different structure. They may handle independence quite well.

Underachievement is made up of a complex web of behaviors, but it can be reversed by parents and educators who consider the many strengths and talents possessed by the students who are labeled as underachievers.

References

Berger, S. (1989). *College planning for gifted students.* Reston, VA: The ERIC Clearinghouse on Handicapped and Gifted Children.

Davis, G. A., & Rimm, S. B. (1989). *Education of the gifted and talented* (2nd ed.). Englewood Cliffs, NJ: Prentice-Hall.

Dinkmeyer, D., & Losoncy, L. (1980). *The encouragement book.* Englewood Cliffs, NJ: Prentice-Hall.

Halsted, J. W. (1988). *Guiding gifted readers: From preschool to high school.* Columbus: Ohio Psychology Publishing.

Kaufmann, F. (1987). *The courage to succeed: A new look at underachievement.* Unpublished paper presented at the 12th annual Northern Virginia Conference on Gifted/Talented Education, Fairfax, VA.

Purkey, W. W., & Novak, J. A. (1984). *Inviting school success* (2nd ed.). Belmont, CA: Wadsworth.

Raph, J. B., Goldberg, M. L., & Passow, A. H. (1966). *Bright underachievers.* New York: Teachers College Press.

Rimm, S. (1986). *The underachievement syndrome: Causes and cures.* Watertown, WI: Apple Publishing Company.

Silverman, L. (1989a). Spatial learners. *Understanding Our Gifted, 1* (4), 1, 7, 8, 16.

Silverman, L. (1989b). The visual-spatial learner. *Preventing School Failure, 34* (1), 15–20.

Torrance, E. P. (1977). *Encouraging creativity in the classroom.* Dubuque, IA: William C. Brown.

Webb, J., Meckstroth, E., & Tolan, S. (1982). *Guiding the gifted child.* Columbus: Ohio Publishing Company.

Whitmore, J. F. (1980). *Giftedness, conflict and underachievement.* Boston: Allyn and Bacon.

Resources for Students

Adderholdt-Elliott, M. (1987). *Perfectionism. What's bad about being too good?* Free Spirit Publishing Co., 123 N. Third St., Suite 716, Minneapolis, MN 55401. Explores the problem of perfectionism, explains the differences between healthy ambition and unhealthy perfectionism, and gives strategies for getting out of the perfectionist trap.

Bottner, B. (1986). *The world's greatest expert on absolutely everything . . . is crying.* New York: Dell Publishers. Deals with how perfectionism affects interpersonal relationships.

Delisle, J., & Galbraith, J. (1987). *The gifted kids' survival guide II.* Free Spirit Publishing Co., 123 N. Third St., Suite 716, Minneapolis, MN 55401. Helps students understand the meaning of giftedness, how to take charge of their own education, how to handle other people's expectations, how to make and keep friends.

Dinkmeyer, D., & Losoncy, L. (1980). *The encouragement book.* Englewood Cliffs, NJ: Prentice-Hall. Provides a plan, strategies, hints, and tips for helping discouraged students.

Ellis, D. (1986). *Becoming a master student.* College Survival, Inc., 2650 Jackson Blvd., Rapid City, SD 57702-3474. Written primarily for college students, this book provides dynamic ways of teaching study skills, time management, and goal setting. Students are encouraged to try innovative approaches to academic and life-management skills. Publisher will provide assistance to counselors and educators concerned about student success and retention.

Galbraith, J. (1984). *The gifted kids' survival guide* (ages 10 and under). Free Spirit Publishing Co., 123 N. Third St., Suite 716, Minneapolis, MN 55401. Support and practical suggestions for gifted youngsters who are struggling with typical problems such as schoolwork, peer relationships, and community expectations.

Halsted, J. W. (1988). *Guiding gifted readers—From preschool to high school.* Columbus: Ohio Psychology Publishing. A guide to using bibliotherapy and an excellent annotated list of books to use with gifted students.

Harvey, J., & Katz, C. (1986). *If I'm so successful, why do I feel like a fake? The imposter phenomenon.* New York: Pocket Books.

Heide, F., & Chess, V. (1985). *Tales for the perfect child.* New York: Lothrop, Lee and Shepard Books. Presents a funny look at what would happen if children were perfect.

Manes, S. (1987). *Be a perfect person in just three days.* New York: Bantam/Skylark Books. A student decides that he wants to be perfect and finds a book on the topic.

McDermott, G. (1980). *Sun flight.* Soquel, CA: Four Winds Press. Shows students how aiming too high with unrealistic standards can be self-defeating.

McGee-Cooper, A. (1983). *Time management for unmanageable people.* P.O. Box 64784, Dallas, TX 75206. Provides a "right-brain" method for work/study skills and time-management.

On being gifted. (1976). New York: Walker and Co. Written by students (ages 15 to 18) who participated in the National Student Symposium on the Education of the Gifted and Talented, this book is an articulate presentation of student concerns such as peer pressure, teacher expectations, and relationships.

Smith, D. (1978). *Dreams and drummers.* New York: Thomas Y. Crowell. The story of a perfectionist who learns that we cannot always be Number One at everything.

Zadra, D. (1986). *Mistakes are great.* Mankato, MN: Creative Education. Provides examples of famous mistakes and how they can be turned into positive learning experiences.

Prepared by James Delisle, Coordinator of Gifted Education, Kent State University, Kent, Ohio, and author of *Gifted Children Speak Out*; and Sandra L. Berger, author of *College Planning for Gifted Students.*

This publication was prepared with funding from the U.S. Department of Education, Office of Educational Research and Improvement, under contract no. RI88062007. The opinions expressed in this report do not necessarily reflect the positions or policies of OERI or the Department of Education.

Clearinghouse on Handicapped and Gifted Children
THE COUNCIL FOR EXCEPTIONAL CHILDREN
1920 Association Drive • Reston, VA 22091-1589
FAX (703) 264-9494

ERIC Digest

DIGEST #E479 **EC–90**

GIFTED BUT LEARNING DISABLED: A PUZZLING PARADOX

How can a child learn and not learn at the same time? Why do some students apply little or no effort to school tasks while they commit considerable time and effort to demanding, creative activities outside of school? These behaviors are typical of some students who are simultaneously gifted and learning disabled. For many people, however, the terms *learning disabilities* and *giftedness* are at opposite ends of a continuum. In some states, because of funding regulations, a student may be identified and assisted with either learning disabilities or giftedness, but not both.

Uneasiness in accepting this seeming contradiction in terms stems primarily from faulty and incomplete understanding. This is not surprising, because the "experts" in each of these disciplines have difficulty reaching agreement. Some still believe that giftedness is equated with outstanding achievement across all subject areas. Thus, a student who is an expert on bugs at age 8 may automatically be excluded from consideration for a program for gifted students because he cannot read, though he can name and classify a hundred species of insects. Many educators view below-grade-level achievement as a prerequisite to a diagnosis of a learning disability. Thus, an extremely bright student who is struggling to stay on grade level may slip through the cracks of available services because he or she is not failing.

Who Are the Learning Disabled Gifted?

Recent advances in both fields have alerted professionals to the possibility that both sets of behavior can exist simultaneously (Baum & Owen, 1988; Fox, Brody, & Tobin, 1983; Whitmore & Maker, 1985). Children who are both gifted and learning disabled exhibit remarkable talents or strengths in some areas and disabling weaknesses in others. They can be grouped into three categories: (1) identified gifted students who have subtle learning disabilities, (2) unidentified students whose gifts and disabilities may be masked by average achievement, and (3) identified learning disabled students who are also gifted.

Identified gifted students who have subtle learning disabilities. This group is easily identified as gifted because of high achievement or high IQ scores. As they grow older, discrepancies widen between expected and actual performance. These students may impress teachers with their verbal abilities, while their spelling or handwriting contradicts the image. At times, they may be forgetful, sloppy, and disorganized. In middle school or junior high, where there are more long-term written assignments and a heavier emphasis on comprehensive, independent reading, some bright students find it increasingly difficult to achieve. Concerned adults are convinced that if these students would only try harder, they could succeed.

While increased effort may be required for these students, the real issue is that they simply do not know how! Because they may be on grade level and are considered gifted, they are likely to be overlooked for the screening procedures necessary to identify a subtle learning disability. Identification of a subtle disability would help them understand why they are experiencing academic difficulties. More important, professionals could offer learning strategies and compensation techniques to help them deal with their duality of learning behaviors.

A word of caution is necessary at this point. A learning disability is not the only cause of a discrepancy between potential and achievement. There are a number of other reasons why bright children may be underachieving. Perhaps expectations are unrealistic. Excelling in science, for example, is no assurance that high-level performance will be shown in other academic areas. Motivation, interest, and specific aptitudes influence the amount of energy students are willing to apply to a given task. Social or emotional problems can interfere with achievement. Grades and school are simply unimportant to some students. Some youngsters have not learned how to study because, during primary grades, school was easy and success required minimal effort.

Unidentified students. The second group of youngsters in which this combination of learning behaviors may be found are those who are not noticed at all. These students are struggling to stay at grade level. Their superior intellectual ability is working overtime to help compensate for weaknesses caused by an undiagnosed learning disability. In essence, their gift masks the disability and the disability masks the gift. These students are often difficult to find because they do not flag the need for attention by exceptional behavior. Their hidden talents and abilities may emerge in specific content areas or may be stimulated by a classroom teacher who uses a creative approach to learning. The disability is frequently discovered in college or adulthood, when the student happens to read about dyslexia or hears peers describe their learning difficulties.

Identified learning disabled students who are also gifted. These bright children, discovered within the population of students who are identified as learning disabled, are often failing miserably in school. They are first noticed because of what they cannot do, rather than because of the talent they are demonstrating. This group of students is most at risk because of the implicit message that accompanies the LD categorization that there is something wrong with the student that must be fixed before anything else can happen. Parents and teachers alike become totally focused on the problem. Little attention, if any, is paid to the student's strengths and interests, other than to use them to remediate weaknesses.

Interestingly, these children often have high-level interests at home. They may build fantastic structures with plastic bricks or start a local campaign to save the whales. The creative abilities, intellectual strength, and passion they bring to their hobbies are clear indicators of their potential for giftedness (Renzulli, 1978). Because these students are bright and sensitive, they are acutely aware of their difficulty in learning. Furthermore, they tend to generalize their feelings of academic failure to an overall sense of inadequacy. Over time, these pessimistic feelings overshadow any positive feelings connected with what they accomplish on their own at home. Research has shown that this group of students is often rated by teachers as most disruptive at school. They are frequently found to be off task; they may act out, daydream, or complain of headaches and stomachaches; and they are easily frustrated and use their creative abilities to avoid tasks (Baum & Owen, 1988; Whitmore, 1980). Since school does not offer these bright youngsters much opportunity to polish and use their gifts, such results are not surprising.

Curricular Needs

Although each of these subgroups has unique problems, they all need an environment that will nurture their gifts, attend to their learning disability, and provide them emotional support to deal with their inconsistent abilities. Four general guidelines can assist professionals in developing programs that will meet the needs of these students.

Focus attention on the development of the gift. Remediation of basic skills historically has been the single focus of efforts to serve students once they have been classified as learning disabled. Few opportunities exist for bright students with learning disabilities to demonstrate gifted behaviors. Research has shown that a focus on weaknesses at the expense of developing gifts can result in poor self-esteem, a lack of motivation, depression, and stress (Baum, 1984; Whitmore & Maker, 1985). In addition to offering remediation, it is essential to focus attention on the development of strengths, interests, and superior intellectual capacities. These students need a stimulating educational environment that will enable them to develop their talents and abilities fully. Enrichment activities should be designed to circumvent weaknesses and highlight abstract thinking and creative production.

Over the last 6 years, the state of Connecticut has funded a variety of special programs for gifted students who have learning disabilities. All the programs have emphasized the development of gifts and talents. The results of the projects have indicated dramatic improvement in student self-esteem, motivation, and productive learning behaviors. Improved achievement in basic skills for many students has been an unexpected bonus (Baum, 1988). In fact, according to Whitmore and Maker (1985), more gains are seen when intervention focuses on the gift rather than the disability.

Provide a nurturing environment that values individual differences. According to Maslow's Hierarchy of Needs (1962), individuals must feel that they belong and are valued in order to reach their potential, or self-actualize. How valued can a student feel if the curriculum must be continually modified or assignments are watered down to enable the student to achieve success? Currently, only certain abilities are rewarded by schools, primarily those that involve strong verbal proficiency. Indeed, according to Howard Gardner (1983), schools spend much of their time teaching students the skills they would need to become college professors. Success in the real world depends on skills or knowledge in other areas besides reading and writing.

A nurturing environment—one that shows concern for developing student potential—values and respects individual differences. Students are rewarded for what they do well. Options are offered for both acquiring information and communicating what is learned. The philosophy fosters and supports interdependence; students work in cooperative groups to achieve goals. Many types of intelligence are acknowledged: A well-produced video production about life in the Amazon is valued as much as a well-written essay on the same topic. In such an environment no child will feel like a second-class citizen, and gifted students with learning disabilities can excel.

Encourage compensation strategies. Learning disabilities tend to be somewhat permanent. A poor speller will always need to check for errors in spelling before submitting a final draft. Students who have difficulty memorizing mathematics facts may need to use a calculator to assure accuracy. Thus, simply remediating weaknesses may not be appropriate or sufficient for students who are gifted and learning disabled. Remediation will make these learners somewhat more proficient, but probably not excellent, in their areas of weakness. For instance, students who have difficulty with handwriting ultimately will fare much better if they are allowed to use a computer to record their ideas on paper than they will after years of remediation in handwriting. The following list outlines suggestions for providing compensation techniques to help students cope with weaknesses typical of learning disabled students:

1. Find sources of information that are appropriate for students who have difficulty reading. Some examples are visitations, interviews, photographs, pictorial histories, films, lectures, or experimentation. Remember, these children do not want the curriculum to be less challenging or demanding. Rather, they need alternative ways to receive the information.
2. Provide advanced organizers to help students receive and communicate information. Students who have difficulty organizing and managing time also benefit from

receiving outlines of class lectures, study guides, and a syllabus of topics to be covered. Teach students who have difficulty transferring ideas to a sequential format on paper to use brainstorming and webbing to generate outlines and organize written work. Provide management plans in which tasks are listed sequentially with target dates for completion. Finally, provide a structure or visual format to guide the finished product. A sketch of an essay or science project board will enable these students to produce a well-organized product.

3. Use technology to promote productivity. Technology has provided efficient means to organize and access information, increase accuracy in mathematics and spelling, and enhance the visual quality of the finished product. In short, it allows students with learning disabilities to hand in work of which they can feel proud. Preventing these students from using word processing programs to complete all written assignments is like prohibiting blind children from using texts printed in braille!
4. Offer a variety of options for communicating ideas. Writing is not the only way to communicate; all learning can be expressed and applied in a variety of modes. Slides, models, speeches, mime, murals, and film productions are examples. Remember, however, to offer these options to *all* children. Alternate modes should be the rule rather than the exception.
5. Help students who have problems in short-term memory develop strategies for remembering. The use of mnemonics, especially those created by students themselves, is one effective strategy to enhance memory. Visualization techniques have also proved to be effective. Resources are listed at the end of this digest.

Encourage awareness of individual strengths and weaknesses. It is imperative that students who are gifted and learning disabled understand their abilities, strengths, and weaknesses so that they can make intelligent choices about their future. If a goal that is important to such a student will require extensive reading, and, if reading is a weak area, the student will have to acknowledge the role of effort and the need for assistance to achieve success. "Rap" sessions, in which these students can discuss their frustrations and learn how to cope with their strange mix of abilities and disabilities, are helpful. Mentoring experiences with adults who are gifted and learning disabled will lend validity to the belief that such individuals can succeed.

Conclusion

In the final analysis, students who are both gifted and learning disabled must learn how to be their own advocates. They must ultimately choose careers that will accentuate their strengths. In doing so they will meet others who think, feel, and create as they do.

One such student, after years of feeling different and struggling to succeed, was finally able to make appropriate decisions about what he truly needed in his life. He was an outstanding amateur photographer who loved music. He had also started several "businesses" during his teenage years. In his junior year at college he became depressed and realized that he was totally dissatisfied with his coursework, peers, and instructors. He wondered whether he should quit school. After all, he was barely earning C's in his courses. His advisor suggested that he might like to create his own major, perhaps in the business of art. That was the turning point in this young man's life. For the first time since primary grades, he began to earn A's in his courses. He related that he finally felt worthwhile. "You know," he said, "finally I'm with people who think like me and have my interests and values. I am found!"

References

Baum, S. (1984). Meeting the needs of learning disabled gifted children. *Roeper Review, 7*, 16–19.

Baum, S. (1988). An enrichment program for gifted learning disabled students. *Gifted Child Quarterly, 32*, 226–230.

Baum, S., & Owen, S. (1988). High ability/learning disabled students: How are they different? *Gifted Child Quarterly, 32*, 321–326.

Fox, L. H., Brody, L., & Tobin, D. (Eds.) (1983). *Learning disabled gifted children: Identification and programming.*Austin, TX: Pro-Ed.

Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences.* New York: Basic Books.

Maslow, A. (1962). *Toward a psychology of being.* Princeton, NJ: Van Nostrand.

Renzulli, J. (1978). What makes giftedness: Reexamining a definition. *Phi Delta Kappan, 60*, 180–184.

Whitmore, J. (1980). *Giftedness, conflict, and underachievement.* Boston: Allyn and Bacon.

Whitmore, J., & Maker, J. (1985). *Intellectual giftedness among disabled persons.* Rockville, MD: Aspen.

Resources

Webbing and Mind-Mapping

Heimlich, J. E., & Pittleman, S. D. (1986). *Semantic mapping: Classroom applications.* Newark, DE: International Reading Association.

Large, C. (1987). *The clustering approach to better essay writing.* Monroe, NY: Trillium Press.

Rico, G. L. (1983). *Writing the natural way.* Los Angeles: J. P. Tarcher.

Visualization Techniques to Improve Memory

Write to Trillium Press, P. O. Box 209, Monroe, NY 10950 for information on the following materials:

Bagley, M. T. *Using imagery to develop memory.*

Bagley, M. T. *Using imagery in creative problem solving.*

Bagley, M. T., & Hess, K. K. *Two hundred ways of using imagery in the classroom.*

Hess, K. K. *Enhancing writing through imagery.*

Using Technology

Summa, D., & Kelly, S. (1989). What's new in software? Computer software for gifted education. *Reading, Writing, and Learning Disabilities*, 5, 293–296.

Additional Reading

Armstrong, T. (1987). *In their own way: Discovering and encouraging your child's personal learning style.* Los Angeles: J. P. Tarcher. Distributed by St. Martin's Press. A former teacher and learning disabilities specialist describes learning differences and provides suggestions.

Cannon, T., & Cordell, A. (1985, November). Gifted kids can't always spell. *Academic Therapy, 21,* 143–152. Briefly discusses characteristics of the gifted learning disabled child, possible patterns on tests, and strategies for instruction.

Daniels, P. (1983). *Teaching the gifted/learning disabled child.* Rockville, MD: Aspen. Designed for educators and often technical.

Fox, L., Brody, L., & Tobin, D. (Eds.). (1983). *Learning disabled gifted children: Identification and programming.* Austin, TX: Pro Ed. The most comprehensive study available, containing a variety of experts' opinions.

Getting learning disabled students ready for college (n.d.). Washington, DC: American Council on Education, HEATH Resource Center. A useful fact sheet and checklist.

How to choose a college: Guide for the student with a disability (n.d.). Washington, DC: American Council on Education, HEATH Resource Center.

Prihoda, J., Bieber, T., Kay, C., Kerkstra, P., & Ratclif, J. (Eds.). (1988). *Community colleges and students with disabilities.* Washington, DC: American Council on Education, HEATH Resource Center. Lists services and programs for disabled students at more than 650 U. S. community, technical, and junior colleges.

Rosner, S. (1985, May/June). Special twice: Guidelines for developing programs for gifted children with specific learning disabilities. *G/C/T, 38,* 55–58. A very basic overview.

Scheiber, B., & Talpers, J. (1987). *Unlocking potential.* Bethesda, MD: Adler and Adler. Offers advice on everything from diagnosis and vocational assessments to specific college programs designed to accommodate students with learning disabilities and provide them with study skills.

Silver, L. (1984). *The misunderstood child: A guide for parents of learning disabled children.* New York: McGraw-Hill. An easy-to-read basic and informative book with a focus on children with learning disabilities, yet relevant to children who are gifted and learning disabled.

Vail, P. (1987). *Smart kids with school problems.* New York: E. P. Dutton. Emphasizes the traits of gifted students and the learning styles that set students who are gifted and learning disabled apart.

Whitmore, J. (1982, January). Recognizing and developing hidden giftedness. *The Elementary School Journal, 82,* 274–283. Explores myths about GT children that hinder the identification of children who are gifted and learning disabled.

Whitmore, J., & Maker, C. J. (1985). *Intellectual giftedness among disabled persons.* Rockville, MD: Aspen. One chapter is devoted to children who are specifically gifted and learning disabled, with excellent case studies.

Wolf, J., & Gygi, J. (1981). Learning disabled and gifted: Success or failure? *Journal for the Education of the Gifted, 4,* 204. Provides well-stated definitions of the qualities of students who are gifted and learning disabled, with ideas about identification and programming.

Note. Reprinted by permission of the publisher, Helen Dwight Reid Educational Foundation. Published by Heldref, 4000 Albemarle St. NW, Washington, DC 20016, from *Preventing School Failure, 34* (1) 11–14. Derived from Susan Baum. (In press). *Being gifted and learning disabled…From definition to practical intervention.* St. Louis: Creative Learning Press. Susan Baum is an assistant professor at the College of New Rochelle in New York.

The Additional Readings section is from S. Berger (1989), *College Planning for Gifted Students.* Reston, VA: The ERIC Clearinghouse on Handicapped and Gifted Children/The Council for Exceptional Children.

This publication was prepared with funding from the U.S. Department of Education, Office of Educational Research and Improvement, under contract no. RI88062007. The opinions expressed in this report do not necessarily reflect the positions or policies of OERI or the Department of Education.

ERIC Clearinghouse on Handicapped and Gifted Children
THE COUNCIL FOR EXCEPTIONAL CHILDREN
1920 Association Drive • Reston, VA 22091-1589
FAX (703) 264-9494

ERIC Digest

DIGEST #E480 EC–90

MEETING THE NEEDS OF GIFTED AND TALENTED MINORITY LANGUAGE STUDENTS

Students with special gifts and talents come from all cultural and linguistic backgrounds. Gifted students can be described as possessing an abundance of certain abilities that are most highly valued within a particular society or culture. Many minority language children have special talents that are valued within their own cultures; unfortunately, these students are often not recognized as gifted and talented.

Most procedures for identifying gifted and talented students have been developed for use with middle class children who are native English speakers. Such procedures have led to an underrepresentation of minority language students in gifted and talented programs, which in turn prevents our schools from developing the strengths and abilities of this special population.

This digest explores the controversy surrounding the underrepresentation of minority language students in gifted and talented programs and makes recommendations for more suitable assessment techniques and program models.

Why are minority language students underrepresented in programs for gifted and talented students?

Educators who work closely with minority language students argue that using standardized IQ tests as a primary measure of giftedness does not fairly accommodate the linguistic and cultural differences of these students. These educators look to identify the "able learner" rather than the more narrowly defined gifted student who scores in the top 3% on IQ tests. Able learners are defined by some educators as students in the top 10% of their class who have shown some extraordinary achievement in one or more areas such as science, mathematics, or the performing arts (Ernest Bernal, personal communication, September 13, 1988).

Reliance on IQ tests alone has greatly diminished the potential number of gifted students. Renzulli (1978) indicated that "more creative persons come from below the 95th percentile than above it, and if such cut-off scores are needed to determine entrance into special programs, we may be guilty of actually discriminating against persons who have the highest potential for high levels of accomplishment" (p. 182).

Three percent is a conservative estimate of the percentage of the population that is considered gifted. However, in Arizona, for example, only 0.14% of the students in gifted and talented programs come from language minority backgrounds (Maker, 1987). Using the 3% criterion, one would estimate that 2,900 limited-English-proficient (LEP) students in Arizona could be receiving some type of services for giftedness. An assessment of needs, however, revealed that only 143 LEP children were participating in gifted programs, despite the fact that minority language students represent 16.17% (96,674) of the school-age population. Other studies indicate that the proportion of Blacks, Hispanics, and American Indians identified as gifted represents only half that expected (Chan & Kitano, 1986).

Table 1 illustrates that, nation wide, Caucasians and Asians are overrepresented, while the percentage of Blacks and Hispanics is only half what would be expected in gifted and talented programs. The concept of giftedness as it relates to culture and values can help explain why more gifted and talented Asian and Pacific-American students have been identified than any other group. Although these children comprise only 2.2% of the school-age population, they constitute 4.4% of the identified gifted students, twice the expected number (Kitano, 1986). (This figure is slightly lower than the statistic given in Table 1 [2.5%], but the table has more recent data.) The traditional Asian values of educational attainment and obedience to authority support achievement in U.S. schools, despite the fact that Asian and Pacific-American cultures differ in many ways from the majority culture.

Different learning styles may also contribute to the underrepresentation of gifted and talented minority language students. Native Americans are often caught between the schools' value of independence and the home and community value of interdependence. In school, students generally sit in rows and face the teacher, whereas in Native American culture, everyone would be seated in a circle and decisions would be made collectively.

Among many Hispanics, cultural differences may also produce manifestations of giftedness that differ from the traditional manifestations in the majority culture. In Puerto Rico, for example, children learn to seek the advice of their family rather than act independently (Perrone & Aleman, 1983). Respect for elders is often valued more than precociousness, which can be seen as disrespectful. Similarly,

Table 1. Percentage of Minority Students Enrolled in Regular Education Programs and Special Programs

Minority Group	*General Enrollment*	*Enrollment in Gifted Programs*
Caucasians	71.2%	81.4%
Blacks	16.2%	8.4%
Hispanics	9.1%	4.7%
Asians	2.5%	5.0%

Sources: Machado, (1987); Zappia, (1989) the Mexican-American child who respects elders, the law, and authority becomes vulnerable in a school system that values individual competition, initiative, and self-direction.

What are some commonly used techniques for the identification of gifted and talented minority language students?

Research on the identification of giftedness points to the lack of appropriate assessment procedures. Giftedness is not a trait inherent to native English speakers; however, there is a lack of instruments that can detect giftedness in minority language students (Gallagher, 1979; Llanes, 1980; Raupp, 1988; Renzulli, Reis, & Smith, 1981). Most tests rely on either oral or written language skills. Minority language students who are not considered gifted may, in fact, be very gifted, but unable to express themselves in English. Therefore, many researchers urge that great caution be exercised in using English standardized tests for the identification of linguistic and cultural minority students. These researchers also recommend selecting tests that reduce cultural and linguistic bias.

The identification and assessment of gifted and talented minority-language students is complex because it involves students who are both gifted and talented and from a language or cultural background different from that of middle class, native-English-speaking children. Many researchers and practitioners recommend multiple assessment measures to give students several opportunities to demonstrate their skills and performance potential.

Each school can establish its own relevant criteria to ensure that the screening process is appropriate for a specific target population. Moreover, an assessment team that is sensitive to their needs can represent the population to be served in the program. In addition, teachers can be brought into the identification process, because they have the opportunity to observe students in numerous academic and social situations.

An alternative to using English language standardized tests is the assessment of LEP students in their native language. These tests measure a variety of skills: creative thinking skills such as fluency, flexibility, originality, and elaboration; intellectual development based on Piaget's theory of development (Piaget, 1954; Piaget & Inhelder, 1973); language proficiency; and nonverbal perceptual skills of cognitive development.

Many school districts now include behavioral checklists or inventories, nominations, or related techniques to identify gifted and talented minority language students. Checklists usually compare or rate the student according to general descriptions or more specific examples of behavior deduced from characteristics of gifted persons. Many of these instruments are designed locally, are available from state departments of education, or are available commercially.

Other commonly used methods such as interviews, self-reports, autobiographies, and case histories can also be used to identify gifted and talented minority language students. Interviews are often scheduled as part of the identification or selection process to determine a candidate's general fitness for a program and provide information for instructional planning. The use of case studies to identify giftedness has been documented by Renzulli and Smith (1977) and is recommended because it relies on multiple sources of information about a student's performance. Although these procedures can be cumbersome, time consuming, and complex, they can provide the most valid basis for decision making.

What types of programs are available for gifted and talented students, and are they suitable for minority language students who are selected to participate?

There are as many different types of programs and instructional models for gifted and talented LEP students as there are different views of intelligence. The program models discussed in this digest demonstrate a wide range of suggestions for choosing a program for gifted and talented students and can stimulate ideas about the types of program that can be implemented. However, each district must implement the program that will best meet the needs of its gifted and talented minority language students.

Jean M. Blanning, of the Connecticut Clearinghouse for Gifted and Talented (1980), suggests that, in general, programs for gifted and talented minority language students should allow their students to

- pursue topics in depth at a pace commensurate with their abilities and intensity of interest;
- explore, branch out on tangents unforeseen when first beginning a study, without curriculum parameters confining them to a particular direction;
- initiate activities, diverge from the structured format, within a framework of guidance and resources appropriate for such exploration;
- ask questions about areas or aspects of studies and find answers which lead to more questions;
- experience emotional involvement with a project because it is based on interests and use of higher levels of ability;
- learn the skills, methodology, and discipline involved in intellectual pursuits and/or creative endeavors;
- think (interpretations, connections, extrapolations) and imagine (ideas, images, intuitive insights) to develop fully into their own products; and
- experience the use of intellectual abilities and senses necessary in all creative endeavors.

Enrichment Programs. The most common program model for gifted and talented students is probably an enrichment program, in which students receive instruction in addition to their regular classroom instruction. Enrichment programs provide learning experiences designed to extend, supplement, or deepen understandings within specific content areas (Dannenberg, 1984). Some enrichment programs provide academic services and cultural opportunities for gifted and talented students.

Gifted and talented LEP students at Louis S. Brandeis High School in New York City (Cochran & Cotayo, 1983) attend operas and museums and, in this way, become a part of American culture. Students have said that the program has made them feel "special," because they visit places they ordinarily would not. Another example of activities in an enrichment program would be to have students studying the prehistoric era see films on dinosaurs, draw pictures of them, and go to a natural history museum to see a dinosaur exhibit.

The decision as to whether or not to implement an enrichment program may be greatly affected by the school district's concept of giftedness. If giftedness is considered a quality to be measured through IQ tests, then perhaps an enrichment program would be seen as a "frill," because it does not concentrate strictly on academics. On the other hand, this program may be particularly appreciated by gifted and talented minority language students, since they often do not receive this sort of exposure to the arts in a standard instructional program.

Resource Rooms. Another program model uses a resource room, which is usually staffed by a resource teacher. Students may visit the resource room to do special assignments or to check out various educational games or puzzles. In a kindergarten/first grade gifted and talented program in Albuquerque, New Mexico (Beam, 1980), parents are also able to check out items for their children. The resource room provides an excellent opportunity for parents and students to bridge the gap between home and school. However, in many inner-city schools, special programs may be needed to obtain the desired levels of parental support. Also, the establishment of a resource room usually requires physical space for the room, sufficient operating funds, and a resource teacher who has expertise in the area of gifted and talented students.

The Hartford, Connecticut, program "Encendiendo Una Llama" ("Lighting a Flame") has been in operation since 1979 and uses a resource room, an after-school program, and a regular classroom component to provide services for gifted and talented minority language students. This program emphasizes language development in English and Spanish, high-level thinking skills, independent work and study skills, and development of creative thinking. It is an integrated program in which English-dominant children also participate. In each of the participating Hartford schools, the bilingual gifted and talented program is the only gifted program in the school, and all children are eligible to participate, regardless of their language background.

Parent Involvement Programs. Many programs include a strong parent involvement component in which parents can help support their children's development at home while the school can be used as an additional resource. Although it is important for all parents to be involved in their children's education, it is particularly critical to develop a strong link between the home and the school for gifted and talented minority language children.

Many programs provide parents with checklists to help assess their children. In addition, programs often provide booklets of home activities through which parents can encourage critical thinking and creativity.

Acceleration or Honors Programs. Many people associate acceleration or honors programs with gifted and talented programs. These programs may include skipping grades, early entrance, early graduation, credit by examination, nongraded classes, and advanced placement classes (Dannenberg, 1984). Some gifted students who seem bored in school may benefit from an accelerated program that provides an academic challenge and keeps them involved in school. However, it may be difficult to identify these students, who initially may not be seen as gifted.

Some educators who adhere to the narrow definition of giftedness as high IQ may not feel that an honors program is appropriate for students who fit the broader definition of the able learner. This attitude is refuted in the film *Stand And Deliver*, which is based on a true story about several minority language students at an inner-city school in Los Angeles. These students were not considered gifted by many of their teachers, yet they were the only students in their school to pass the Advanced Placement exams given by the Educational Testing Service for college credit in calculus. Their success can be attributed largely to their mathematics teacher, Jaime Escalante, who had very high expectations for them and refused to believe that they were unable to think critically simply because they were from low-income, minority language backgrounds. He encouraged their participation in these special advanced classes (held at night and on Saturdays in overcrowded, stifling classrooms) to prove to other students, the faculty, and themselves that they were intelligent. Moreover, these students gained new, strong, self-concepts, which inevitably improved their academic skills and gave them the courage and discipline to pursue a college education.

Mentor Programs. Another program model for gifted and talented education is the mentor program. Mentors provide role models for the students, giving them an opportunity to interact with adult professionals. Through the Higher Achievement Program in Washington, DC, elementary and junior high school students from low-income neighborhoods are tutored by volunteers 2 nights a week. To be eligible for the program, students must show a high level of motivation and pass a qualifying examination. One night each week is devoted to verbal skills such as reading comprehension, vocabulary, and writing; the second night is devoted primarily to mathematics and related skills. Critical thinking skills are stressed in all subjects.

The mentor program has many psychological and social benefits for the students and is a low-cost program if the school district recruits area professionals as volunteers. School districts located near universities can encourage them to establish a course in which official credit is given to university students who participate as mentors. If the mentors are sensitive to the needs of particular cultural and linguistic groups, they can provide positive role models for the students. The mentor program concept can be a solution to difficult budget constraints and has been used by numerous school districts around the country.

Recommendations for Change

The following recommendations may improve the assessment and educational programs of gifted and talented minority language students.

Broaden the concept of giftedness. Broadening the concept of giftedness to include able learners will allow for the identification of a greater proportion of gifted minority language students. A broader definition of giftedness may be the first essential step toward identifying and educating gifted and talented minority language students.

Expand research on giftedness and minority language students. Although there is a large body of literature on gifted and talented students in general, there is much less literature on gifted and talented minority language students. This may be because many researchers in the past did not consider minority language students as gifted, based on the traditional measure of giftedness as a high IQ score. Further research is needed on *all* the able learners in our schools, including minority language students.

Employ more well-rounded assessment techniques. If there is a lower-than-expected proportion of minority language students identified as gifted, then the identification and assessment process should be examined to determine why these students have not been identified. School districts may need to find creative solutions to the problem of how to identify gifted and talented minority language students by using nontraditional methods.

The identification of minority language students can include multiple criteria (with information from many sources) relevant to the needs of the population. Using multiple instruments can result in a more precise picture because it provides information about students from different perspectives. A combination of assessment instruments can help ensure that a student's ability to participate effectively in a gifted and talented program is adequately measured.

Increase staff awareness of their potential for developing a gifted and talented program. Regardless of the program model selected for implementation, administrators must first examine the resources they have within their school system. Upon entering the school district, teachers could be asked to complete a questionnaire about their abilities and interests and whether or not they would be interested in participating in a gifted and talented program. For example, a teacher who has played piano for 10 years might be interested in teaching a course in music appreciation. Administrators need to be aware of the unique talents within their own staff as they identify local personnel who may be able to contribute their time, effort, and expertise to gifted and talented programs.

Explore various program models. No single model can be recommended as the "best" instructional approach for gifted and talented minority language students, because each population is unique and each program has its own specific goals and objectives. The type of program implemented may depend on several issues such as the instructional model, the talents of the students, the number of gifted students identified, the talents of the professional staff, the availability of qualified personnel, the level of commitment of the school and school system, and budget constraints.

Increase awareness of different ways giftedness may be manifested in different populations. Many students are gifted or talented. Teachers face the challenge of identifying, developing, and supporting their students' talents. Although this may be a challenge, it is also a rewarding experience. Watching students grow to their fullest potential and knowing that, as the teacher, you have played an integral part in your students' growth are great personal and professional triumphs.

Conclusion

This digest highlights some of the current debates in the education of gifted and talented students focusing on the definition of giftedness, the assessment of gifted students, and the development and implementation of gifted programs. Providing appropriate gifted and talented programs for students from linguistically and culturally diverse backgrounds is a challenge that many school districts face. Since minority language students represent an increasing percentage of the total school population, meeting the educational needs of gifted minority language students is vital. All students, including minority language students, deserve the most challenging instruction possible.

References

Beam, G. C. (1980). *A kindergarten/primary program for culturally different potentially gifted students in an inner city school in Albuquerque, New Mexico* (Final Report). Grant Number G007901801. Project Number 562AH90290. Albuquerque:Albuquerque Special Preschool.

Blanning, J. M. (1980). *A multi-dimensional inservice handbook for professional personnel in gifted and talented.* Hartford: Connecticut State Department of Education, Connecticut Clearinghouse for the Gifted and Talented.

Chan, K. S., & Kitano, M. K. (1986). Demographic characteristics of exceptional Asian students. In M. K. Kitano & P. C. Chinn (Eds.), *Exceptional Asian children and youth* (pp. 1–11). Reston, VA: The Council for Exceptional Children.

Cochran, E. P., & Cotayo, A. (1983). *Louis D. Brandeis high school, demonstration bilingual enrichment college preparatory program.* New York: New York City Public Schools.

Dannenberg, A. C. (1984). *Meeting the needs of gifted & talented bilingual students: An introduction to issues and practices.* Quincy: Massachusetts Department of Education, Office for Gifted and Talented.

Gallagher, J. J. (1979). Issues in education for the gifted. In A. H. Passow (Ed.), *The gifted and the talented: Their education and development.* Chicago: University of Chicago Press.

Kitano, M. K. (1986). Gifted and talented Asian children. *Rural Special Education Quarterly, 8*(1), 9–13.

Llanes, J. R. (1980, February-March). Bilingualism and the gifted intellect. *Roeper Review, 2*(3), 11–12.

Machado, M. (1987, February). Gifted Hispanics underidentified in classrooms. *Hispanic Link Weekly Report*, p.1.

Maker, C. J. (1987). *Project DISCOVER; Discovering intellectual skills and capabilities while providing opportunities for varied ethnic responses.* Tucson: University of Arizona, Division of Special Education and Rehabilitation.

Piaget, J. (1954). *The construction of reality in the child.* New York: Basic Books.

Piaget, J., & Inhelder, B. (1973). *Memory and intelligence.* New York: Basic Books.

Raupp, M. (1988). Talent search: *The gifted Hispanic student.* Quincy: Massachusetts Department of Education, Office for Gifted and Talented.

Renzulli, J. S. (1978). What makes giftedness? Reexamining a definition. *Phi Delta Kappan, 60*(3), 180–184, 186.

Renzulli, J. S., Reis, S., & Smith, L. H. (1981). *The revolving door identification model.* Mansfield Center, CT: Creative Learning Press.

Renzulli, J., & Smith, L. (1977). Two approaches to identification of gifted students. *Exceptional Children 43*, 512–518.

Zappia, I. (1989). Identification of gifted Hispanic students: A multidimensional view. In C. J. Maker & S. W. Schiever (Eds.), *Defensible programs for gifted students from underserved populations: Cultural and ethnic minorities* (pp. 10–26). Austin: Pro-Ed.

Note. Adapted from Linda M. Cohen. (1988, Fall). Meeting the needs of gifted and talented minority language students. *New Focus, 8.* The National Clearinghouse for Bilingual Education. Publication prepared under Contract No. 300860069 for the Office of Bilingual Education and Minority Languages Affairs (OBEMLA), U. S. Department of Education.

This publication was prepared with funding from the U.S. Department of Education, Office of Educational Research and Improvement, under contract no. RI88062007. The opinions expressed in this report do not necessarily reflect the positions or policies of OERI or the Department of Education.

Clearinghouse on Handicapped and Gifted Children
THE COUNCIL FOR EXCEPTIONAL CHILDREN
1920 Association Drive • Reston, VA 22091-1589
FAX (703) 264-9494

ERIC Digest

DIGEST #E481

EDO–EC–90–1

GUIDING THE GIFTED READER

Educators are voicing concerns regarding the place of literature in the classroom, calling for the use of literature to supplement basal readers in the elementary curriculum and raising questions about the knowledge base of senior high students in literature and history (Ravitch & Finn, 1987). Meanwhile, school systems are expanding their offerings for gifted students.

At the confluence of these trends stands the gifted student, whose particular reading requirements teachers, librarians, and both reading consultants and consultants in gifted and talented education attempt to meet. These professionals face the perplexing questions of how to offer challenging reading to gifted students, how to guide their reading, and how to know what books to recommend to them or their parents. Another relevant concern is how to develop programs that use literature in ways that are the most helpful to gifted students and make the most effective use of their abilities. In programs for gifted students it is important to go beyond a basic response to the need for more literature in the curriculum.

One way to approach the question of guiding gifted readers is to consider their intellectual and emotional development in light of reading and literature. What are the intellectual and emotional challenges they face specifically because they are gifted? What reading programs can be offered to help them meet these challenges successfully?

Characteristics of the Gifted Child as Reader

As is so often the case in gifted education, we can express the reading characteristics of gifted children by using variations on the word *more*. They read earlier; some are spontaneous preschool readers, and nearly all learn to read independently soon after classroom instruction begins. They read better, requiring less drill (if any) to master each technique of the reading process. They read longer; during the peak reading years (grades four through eight) many of them spend many more hours each week reading than their classmates do, and some gifted youngsters continue to be voracious readers into senior high and adulthood, when most people find less time for leisure reading (Whitehead, 1984). Typically they read a greater variety of literature; they are more likely to branch out from realistic fiction to fantasy, historical fiction, and biography (Hawkins, 1983).

Reading and Intellectual Development

The presence of an ability implies a need for the opportunity to develop that ability. Thus Barbara Clark (1983) outlined cognitive characteristics that differentiate gifted children from others, and then went on to list needs related to each characteristic. Her list includes the following needs:

- To be exposed to new and challenging information about the environment and the culture.
- To be exposed to varied subjects and concerns.
- To be allowed to pursue ideas as far as their interests take them.
- To encounter and use increasingly difficult vocabulary and concepts.
- To be exposed to ideas at rates appropriate to the individual's pace of learning.
- To pursue inquiries beyond allotted time spans.

All of these needs can be met easily and inexpensively through a program based on books and reading. If the opportunity for group book discussion is added, the program will also meet other cognitive needs listed by Clark:

- To have access to intellectual peers.
- To share ideas verbally in depth.
- To have a longer incubation time for ideas.
- To pursue ideas and integrate new ideas without forced closure or products demanded.
- To build skills in productive thinking.
- To draw generalizations and test them.

Promoting Intellectual Development Through Books

Teachers working with groups of gifted students can use books to promote intellectual development by (a) using literature as a supplement to the readings in basal texts, (b) forming discussion groups based on books, and (c) following programs such as the Junior Great Books discussion format.

As interest grows in the use of literature in the reading curriculum, textbook publishers are beginning to supply appropriate materials. Teachers can also develop their own programs by requiring students to read whole books in addition to their reading in the basal series. For gifted students, this requirement can be positive, rewarding them for something they already enjoy. Students can keep reading notebooks, in which they write title, author, date read, and a short comment on the book. To ensure both quality control and choice, it is best if the student can select the required reading from a list prepared by the teacher or librarian.

Book discussions can be led by teachers, librarians, or volunteers and should focus on themes and ideas in the literature read, with the emphasis on higher level thinking skills rather than on plot summaries and fact questions.

One formalized method of discussing literature is that promoted by The Great Books Foundation. The Junior Great Books program offers a series of 12 readings for each grade from 2nd through 12th, as well as training courses for leaders.

For individual gifted students, books can be part of the educational program if an adult (parent, teacher, librarian, or other mentor) offers reading guidance, discussing what the student has read and making suggestions for related reading—always keeping in mind the student's interests, reading ability, and reading background. The goal is to expose the student to a variety of books of high quality and stretch the student a little beyond his or her previous awareness. Gifted students do not automatically know what is good literature; they need information and guidance to find the best.

Adults offering reading guidance or leading book discussion groups will need suggestions for books that are appropriate for gifted students. The most extensive lists available are found in *Books for the Gifted Child* (Baskin & Harris, 1980), *Books for the Gifted Child, Volume 2* (Hauser & Nelson, 1988) and *Guiding Gifted Readers* (Halsted, 1988).

Literature and Emotional Development

In recent years educators and parents have become more aware of the need to nurture the social and emotional development of gifted children in addition to meeting their intellectual needs. Gifted children and youth must face the same challenges as they grow that everyone else faces, but the phenomenon of giftedness can make growing up more difficult for them. They may experience isolation, feelings of difference and even inferiority, and the sense of being misunderstood or not understood by their classmates and by adults. Because of their extreme sensitivity and intensity, they may be more seriously affected by teasing and criticism than most. They must continually choose between the alternatives of using their ability or fitting in with their group (Gross, 1989).

These affective concerns can also be addressed through the use of books. In many novels for children and young people, the issues just listed are major themes, whether or not the characters are identified as gifted. Adults who read and discuss such books with gifted young people can guide them in preparing for or coping with the extra dimensions that being gifted adds to the process of growing up.

Promoting Emotional Development Through Books

Those who use book discussions to meet emotional needs are using a form of *developmental bibliotherapy.* Developmental bibliotherapy offers a way of assisting individuals who are facing a particular life stage or a specific situation—such as giftedness—for which they can be better prepared through reading and discussion. Rather than merely recommending a book to a child, it includes three components: a reader, a book, and a leader who will read the same book and prepare for productive discussion of the issues the book raises.

To be effective, the leader must be aware of the process of bibliotherapy: *identification*, in which the reader identifies with a character in the book; *catharsis*, the reader's experiencing of the emotions attributed to the character; and *insight*, the application of the character's experience to the reader's own life. The leader then frames questions that will confirm and expand on these elements.

Like reading guidance, developmental bibliotherapy can be used with individuals or with groups. However, using it well requires more background than reading guidance, and the leader must be alert for indications that the child should be referred to a mental health professional. More information on developmental bibliotherapy can be found in *Guiding Gifted Readers* (Halsted, 1988), and background information on clinical bibliotherapy, the forerunner of developmental bibliotherapy, can be found in *Bibliotherapy: The Interactive Process* (Hynes & Hynes-Berry, 1986).

References

Baskin, B. H., & Harris, K. H. (1980). *Books for the gifted child.* New York: Bowker.

Clark, B. (1983). *Growing up gifted: Developing the potential of children at home and at school* (2d ed.). Columbus: Merrill.

Gross, M. U. M. (1989). The pursuit of excellence or the search for intimacy? The forced choice dilemma of gifted youth. *Roeper Review, 114*) 189–194.

Halsted, J. W. (1988). *Guiding gifted readers from preschool through high school.* Columbus: Ohio Psychology Publishing.

Hauser, P., & Nelson, G. A. (1988). *Books for the gifted child* (Vol. 2). New York: Bowker.

Hawkins, S. (1983). Reading interests of gifted children. *Reading Horizons, 24.*

Hynes, A. M. & Hynes-Berry, M. (1986). *Bibliotherapy: The interactive process: A handbook.* Boulder: Westview.

Ravitch, D. & Finn, C. E., Jr. (1987). *What do our seventeen-year-olds know? A report on the first national assessment of history and literature.* New York: Harper & Row.

Whitehead, R. J. (1984). *A guide to selecting books for children.* Metuchen, NJ: Scarecrow.

Resource

Great Books Foundation, 40 East Huron Street, Chicago, IL 60611

Prepared by Judith Wynn Halsted, educational consultant at the Center for the Gifted, 934 E. Eighth Street, Traverse City, MI 49684, and the author of *Guiding Gifted Readers from Preschool Through High School: A Handbook for Parents, Teachers, Counselors, and Librarians.* Columbus: Ohio Psychology Publishing Co. (1988).

This publication was prepared with funding from the U.S. Department of Education, Office of Educational Research and Improvement, under contract no. RI88062007. The opinions expressed in this report do not necessarily reflect the positions or policies of OERI or the Department of Education.

Clearinghouse on Handicapped and Gifted Children
THE COUNCIL FOR EXCEPTIONAL CHILDREN
1920 Association Drive • Reston, VA 22091-1589
FAX (703) 264-9494

ERIC Digest

DIGEST #E482 **EC–90**

DISCOVERING MATHEMATICAL TALENT

Sara, who is 5 years old, listens as her 32-year-old father comments that today is her grandmother's 64th birthday. "Grandma's age is just twice my age," he observes.

Although outwardly Sara does not seem to react to this information, her mind is whirling. A few moments pass, and then the young girl excitedly replies, "You know Dad, you will only be 54 when your age is twice mine!"

Sara has been intrigued by numbers and numerical relationships since she was very small. At first this could be seen in the way she liked to count things and organize groups of objects. She showed a fascination for calendars, telephone numbers, dates, ages, measurements, and almost anything else dealing with numbers. Sara learned and remembered this information quickly and easily, but what was even more amazing was the way she played with and manipulated the information she was learning. She would carefully examine each idea and eagerly search to discover new, interesting, and unusual relationships and patterns. Although Sara has had little formal instruction in mathematics, at the age of 5 she has acquired an incredible amount of mathematical knowledge and is amazingly sophisticated in using this knowledge to discover new ideas and solve problems.

Sara is an example of a young child who is highly talented in the area of mathematics. Like most individuals with this unusual talent, Sara exhibits characteristics and behaviors that are clues to her ability. Some mathematically talented people radiate many or obvious clues, others offer only a few, or subtle ones. Recognizing these clues is often an important first step in discovering an individual's high ability in mathematics. It is difficult to believe, but many people with a high degree of mathematical talent have their talent underestimated or even unrecognized. Their clues have gone unnoticed or ignored, and the true nature of their ability remains unexplored. If Sara's talent in mathematics is to be discovered and appropriately nurtured, it is important that her parents and teachers recognize the clues.

What should parents and teachers know to help them better recognize mathematical talent?

Mathematical talent refers to an unusually high ability to understand mathematical ideas and to reason mathematically, rather than just a high ability to do arithmetic computations or get top grades in mathematics. When considering mathematical talent, many people place too much emphasis on computational skill or high ability in replicating taught mathematical procedures. Unless mathematical talent is correctly perceived, however, important clues can be overlooked and less important clues can be given too much significance.

Some characteristics and behaviors that may yield important clues in discovering high mathematical talent are the following:

1. An unusually keen awareness of and intense curiosity about numeric information.
2. An unusual quickness in learning, understanding, and applying mathematical ideas.
3. A high ability to think and work abstractly and the ability to see mathematical patterns and relationships.
4. An unusual ability to think and work with mathematical problems in flexible, creative ways rather than in a stereotypic fashion.
5. An unusual ability to transfer learning to new, untaught mathematical situations.

Terms such as mathematically talented, mathematically gifted, *and* highly able in mathematics *are generally used to refer to students whose mathematics ability places them in the top 2% or 3% of the population.* It is important to keep in mind the unusually high degree of talent that is being sought when looking for mathematically talented individuals.

Not all students who achieve the highest test scores or receive the highest grades in mathematics class are necessarily highly talented in mathematics. Many of the mathematics programs in our schools are heavily devoted to the development of computational skills and provide little opportunity for students to demonstrate the complex types of reasoning skills that are characteristic of truly talented students. The tests used and the grades given in such programs usually reflect that structure. Computational accuracy and conformity to taught procedures may be overemphasized, and the reasoning abilities associated with high ability in mathematics may be underemphasized. In this type of environment, test scores and grades of less able students who are good in computation, attentive in class, willing to help, and conscientious about completing all assignments carefully in the prescribed manner will often be as high as the test scores and grades of students who are genuinely talented in mathematics. While high achievement in school certainly can be a clue to high ability in mathematics, additional information is needed. If care is not taken, students who are simply high achievers in mathematics can be mistakenly identified as mathematically talented. It is just as important to avoid such incorrect identification as it is to identify students who are truly mathematically talented.

Some mathematically talented students do not demonstrate outstanding academic achievement, display enthusiasm toward school mathematics programs, or get top grades in mathematics class. It is important to know that there are students like this, for their ability in mathematics is easily overlooked, even though they may exhibit other clues suggesting high ability in mathematics. There are many possible reasons why these students do not do well, but often it is at least in part because of a mismatch between the student and the mathematics program. Many of them refuse, or are unable, to conform to the expectations of programs that they see as uninteresting and inappropriate. For their part, educators may not recognize the true ability of these students or see a need for adjusting the existing mathematics program.

How can standardized test results help in recognizing mathematical talent?

Intelligence Tests. IQ test results often yield valuable information and may provide clues to the existence of mathematical talent. Used alone, however, these tests are not sufficient to identify high ability in mathematics. Mathematical talent is a specific aptitude, while an IQ score is a summary of many different aptitudes and abilities. An individual's IQ is made up of several different components, only some of which relate to mathematical ability. Suppose two students have the same IQ scores. One of them could have a high score in mathematical components and a low score in verbal components, while the other is just the opposite. The first student would be likely have to much greater mathematics ability than the second, even though they have the same overall IQ. Children with high IQ's—no matter how high the score—cannot be assumed to be mathematically talented. It could be a clue, but more information is needed.

Creativity Tests. There are differing opinions on how the results of creativity tests can be used to help identify high ability in mathematics. Although mathematically talented students display creativity when dealing with mathematical ideas, this is not always apparent in creativity test results. However, high creativity assessments, along with indications of intense interest in mathematics, do seem to be a significant clue of mathematical talent.

Mathematics Achievement Tests. Mathematics achievement tests also can provide valuable clues in identifying high ability in mathematics, but the results of these tests have to be interpreted carefully. Mathematics achievement tests are often computation-oriented and give little information about how a student actually reasons mathematically. Also, the tests seldom have enough difficult problems to appropriately assess the upper limits of a talented student's ability or show that this ability is qualitatively different from that of other very good, but not truly mathematically talented, students. If these limitations are kept in mind, the results of mathematics achievement tests can be useful. Students scoring above the 95th or 97th percentiles on national norms *may* have high ability in mathematics, but more information is needed to separate the high achievers from the truly gifted. It should not be assumed that there are no mathematically talented students among those scoring below the 95th percentile; those students will have to be recognized from other clues.

Mathematics Aptitude Tests. Standardized mathematics aptitude test results should be used in basically the same way that the results of mathematics achievement tests are used. Aptitude tests have some of the same limitations as achievement tests except that, because they are designed to place less emphasis on computational skills and more emphasis on mathematical reasoning skills, the results from these tests are often more useful in identifying mathematically talented students.

Out-of-Grade-Level Mathematics Aptitude Tests. Many of the limitations associated with mathematics aptitude tests can be reduced by administering out-of-grade-level versions of the tests. This process should be used only with students who already have demonstrated strong mathematics abilities on regular-grade-level instruments or those who show definite signs of high mathematics ability. An out-of-grade-level mathematics aptitude test is a test that is usually designed for and used with students about one and one-third times the age of the child being tested. For example, a 9-year-old third grader would be tested using an abilities test normally written for 12-year-old sixth graders. This gives a much better assessment of mathematical reasoning skills because the student must find ways to solve problems, many of which he or she has not been taught to do. These tests have many difficult problems that will challenge even the most capable students, thus making it possible to discriminate the truly talented from others who are just very good in mathematics.

The out-of-grade-level testing procedure has been used successfully in several mathematics talent searches and school mathematics programs with junior and senior high school students over the past 15 years. More recently, there have been programs that have successfully used the procedure in the elementary grades.

What systematic process can be used to identify mathematically talented students?

Correctly identifying mathematically talented students is not a simple task, and there is more than one way to go about it. Some common features of successful identification processes are combined in the following model. This model is intended to be implemented with a degree of flexibility in order to give mathematically talented students every opportunity to have their talent discovered. This may be especially important when looking for mathematical talent in minority or disadvantaged populations.

Phase One: Screening

The objective in phase one is to establish a group of students suspected of having high ability in mathematics. These students will be evaluated further in the next phase. In phase one, effort attempt should be made not to miss potentially talented students.

Figure 1. Identification Checklist

Student Name	*Ability Test*	*Achievement Test*	*Gifted*	*Creative*	*Teacher/Parent Nominations*	*Out-of-Grade-Level Test*
Jones, John	97				yes/yes	
Smith, Sally		95	yes			

Step One. An identification checklist (Figure 1) should be set up to record the names of students thought to have high ability in mathematics along with the clues that suggest their talent. Students scoring above the 95th percentile on a mathematics aptitude test are entered first. Next, those scoring above the 95th percentile on mathematics achievement tests who are not already on the list are added. If a student's name is already on the list, the test score is simply added to that student's record. In a like manner, students who are mentally gifted; students who are creative and have high interest in mathematics; and students nominated by parents, teachers, self, or peers can be added.

Step Two. The checklist information for each student should be reviewed. If the information collected for a particular student suggests that out-of-grade-level testing is not advisable, that student's name should be removed, because phase two testing may damage the egos of students who do not really excel in mathematics. However, caution should be exercised *not* to eliminate talented students in this process. Parent involvement in these decisions is recommended.

Phase Two: Out-of-Grade-Level Mathematics Abilities Assessment

The objective in phase two is to separate the mathematically talented students from those who are merely good students in mathematics and to begin assessing the extent of the ability of the mathematically talented students.

Step One. Students who are scheduled to take the out-of-grade-level test, along with their parents, should be informed about the nature of this test and the reason it is being given. The out-of-grade-level test would then be administered with student and parent consent. Figure 2 provides a sample schedule for such testing.

Step Two. The results of each student's out-of-grade-level test should be evaluated in conjunction with the results of phase one screening. Generally, the student's out-of-grade-level score will be an indication of degree of mathematical talent. Scores above the 74th percentile represent a degree of mathematical talent similar to that of students identified in regional talent searches such as the one conducted by Johns Hopkins University. This level of talent places the student in the upper 1% of the population in mathematics ability. Scores above the 64th percentile denote a level of talent that most likely places the student in the upper 3% of the population. Students in these two groups would be identified as mathematically talented.

Figure 2. Testing Schedule

Current Grade (Fall)	*Out-of-Grade-Level Test*
1st	3rd grade — Fall
2nd	4th grade — Fall
3rd	5th grade — Spring
4th	7th grade — Fall
5th	8th grade — Fall
6th	9th grade — Spring
7th	11th grade — Fall
8th	12th grade — Fall

What instructional approaches benefit mathematically talented students?

Students identified as mathematically talented vary greatly in degree of talent and motivation. No single approach is best for all of these students. The design of each student's instructional program in mathematics should be based on an analysis of individual abilities and needs. For example, students with extremely high ability and motivation may profit more from a program that promotes rapid and relatively independent movement through instructional content. Students with less ability or lower motivation may do better in a program that is not paced so quickly and is more deliberate in developing the mathematical concepts being taught. There are some common features, however, that seem to be important ingredients in the mathematics programs of mathematically talented students.

The program should bring mathematically talented students together to work with one another in the area of mathematics. Students will benefit greatly, both academically and emotionally, from this type of experience. They will learn from each other, reinforce each other, and help each other over difficulties.

The program should stress mathematical reasoning and develop independent exploratory behavior. This type of program is exemplified by discovery learning, looking for underlying principles, engaging in special projects in mathematics, problem solving, discovering formulas, looking for patterns, and organizing data to find relationships.

The mathematics program should deemphasize repetitious computational drill work and cyclical review. This type of work in mathematics should be minimal for all mathematically talented students. As ability in mathematics increases, the benefits to be gained from this type of activity decrease.

The scope of the mathematics curriculum should be extensive so that it will provide an adequate foundation for students who may become mathematicians in the future. In many programs the mathematics curriculum will have to be greatly expanded to meet this need.

The mathematics program should be flexibly paced. Flexibly paced means that students are placed at an appropriate instructional level on the basis of an assessment of their knowledge and skill. Each student is then allowed to progress at a pace limited only by his or her ability and motivation. Flexible pacing can be achieved in the following ways:

- Continuous progress. Students receive appropriate instruction daily and move ahead as they master content and skill.
- Compacted course. Students complete two or more courses in an abbreviated time.
- Advanced-level course. Students are presented with course content normally taught at a higher grade.
- Grade skipping. Students move ahead 1 or more years beyond the next level of promotion.
- Early entrance. Students enter elementary school, middle school, high school, or college earlier than the usual age.
- Concurrent or dual enrollment. Students at one school level take classes at another school level. For example, an elementary school student may take classes at the middle school.
- Credit by examination. Students receive credit for a course upon satisfactory completion of an examination or upon certification of mastery.

Conclusion

The fate of Sara and other mathematically talented students will be determined largely by the ability of their parents and educators to discover and nurture their special ability. The notion that these students will achieve their potential anyway is constantly refuted. For too many students like Sara, lack of appropriate mathematical nourishment seems to be the rule rather than the exception. At risk are the benefits that these children might gain from early advancement and the attitudes that these children will have toward mathematics, school, learning in general, and themselves. By discovering the mathematical talent of these students and using that knowledge to provide appropriate academic nurture, we have the greatest chance to help these individuals reach their gifted potential.

Resources

Bartkovich, K. G., & George, W. C. (1980). Teaching the gifted and talented in the mathematics classroom. *Teaching the Gifted and Talented in the Content Areas Series.* Washington, DC: National Education Association.

Chang, L. L. (1985). Who are the mathematically gifted elementary school children? *Roeper Review, 8*(2), 76–79.

Cohn, S. J. (1983). *Training guide for educational administrators* (pp. 31–78). Tempe: Arizona State University.

Daniel, N., & Cox, J. (1988). *Flexible pacing for able learners* (pp.1–5; 60–65). Reston, VA: The Council for Exceptional Children.

Fox, L. (1981). Identification of the academically gifted. *American Psychologist, 36,* 1103–1111.

Gallagher, J. J. (1975). *Teaching the gifted child* (pp. 95–118). Boston: Allyn and Bacon.

Greenes, C. (1981). Identifying the gifted student in mathematics. *Arithmetic Teacher, 28*(6), 14–17.

Heid, M. K. (1983). Characteristics and special needs of the gifted student in mathematics. *The Mathematics Teacher, 76,* 221–226.

Johnson, M. L. (1983). Identifying and teaching mathematically gifted elementary school children. *Arithmetic Teacher, 30*(5), 25–26; 55–56.

Keating, D. P. (1975). The study of mathematically precocious youth. *Journal of Special Education, 9*(1), 45–62.

Krutetski, V. A. (1976). *The psychology of mathematical abilities in school children.* Chicago: The University of Chicago Press.

Marland, S. P. (1972). *Education of the gifted and talented.* Vol. 1. Report to the Congress of the United States by the U. S. Commissioner of Education. Washington, DC: United States Government Printing Office.

Stanley, J. C. (1977). *The gifted and creative: A fifty year perspective.* Baltimore: Johns Hopkins University Press.

Stanley, J. C., Keating, D. P., & Fox, L. H. (Eds.). (1974). *Mathematical talent: Discovery, description, and development.* Baltimore: Johns Hopkins University Press.

Wavrik, J. J. (1980). Mathematics education for the gifted elementary school student. *Gifted Child Quarterly, 24,* 169–173.

Prepared by Richard C. Miller, Supervisor of Gifted Programs, Appalachia Intermediate Unit 8, Department for Exceptional Children, Hollidaysburg, PA.

This publication was prepared with funding from the U.S. Department of Education, Office of Educational Research and Improvement, under contract no. RI88062007. The opinions expressed in this report do not necessarily reflect the positions or policies of OERI or the Department of Education.

ERIC
Clearinghouse on Handicapped and Gifted Children
THE COUNCIL FOR EXCEPTIONAL CHILDREN
1920 Association Drive • Reston, VA 22091-1589
FAX (703) 264-9494

ERIC Digest

DIGEST #E483
EDO-EC-90-2

PERSONAL COMPUTERS HELP GIFTED STUDENTS WORK SMART

Since the early 1970s, schools across the nation have been adding instruction in computing to programs for students of all ages and abilities. Gifted and talented students in many schools now have access to computers in their classrooms, and an increasingly large percentage of these students have home computers. As the goals for technology education and the promises of educational change have grown, the hardware and software used in both schools and homes have improved steadily. Educators, business and industry, the government, and the general public believe our most able students must be computer literate for our nation to be competitive in the next generation. Only recently, with the gulf between promises and achievements widening, have voices of concern been raised (Holden, 1989).

The disparity between theory and practice is attributed to many causes, ranging from a lack of educational focus to a shortage of funding. But even those reporting problems have found evidence that students are working "smarter," whether they are learning and using more information, understanding key concepts and relationships better, or developing higher level thinking skills. Gifted students are benefiting from increased use of computers because their special needs are being met through informed use of technology.

The Needs of Gifted and Talented Students

The identification of gifted and/or talented individuals and the determination of their specific needs is complicated by the widely different opinions of what giftedness is and how it is manifested. Basic research is as varied as Howard Gardner's (1983) theory of multiple intelligences and Joseph Renzulli's (1977) dependence on congruence between ability, commitment, and creativity. Most agree, however, that the talents of gifted youngsters are dynamic, rather than static or fixed, and that the youngsters and their talents must be nurtured.

How schools nurture and the effects of various practices are the focus of much research. June Cox (Cox, Daniel, & Boston, 1985), with the Sid W. Richardson Foundation, conducted a national study of current programming for able learners. Donald Treffinger (1986) has written prolifically on gifted programs. Others have explored the relationship of specific processes such as problem finding to nurturing specific talents such as creativity (Getzels & Csikszentmihalyi, 1976).

Combined with practice and experience, the research suggests that the following tenets are essential to good programming for gifted and talented students:

- Instruction recognizes students' unique learning styles.
- Students are supported as they grow in self-confidence and self-awareness of their strengths and weaknesses.
- Students progress at a rate most appropriate for them.
- Structured opportunities are provided for individual and small-group investigations of real problems.
- Students are encouraged to develop and practice higher level thinking skills.
- Opportunities are provided for students to establish goals and determine objectives.
- Students learn with and from each other.
- A wide range and variety of materials and resources are available.
- Student interests are used as a basis for learning.

Computers Are Idea Engines

The computer has evolved well beyond the ancestral calculator that did amazing computations. It has become an idea engine—a tool for discovery, exploration, and collaboration. Computers are designed to process information, and the results they furnish are as limitless as the human beings using them and the problems and applications for which they are employed. Computers can manage data whether the information they store is organized as numbers, names, words, dates, or any combination of facts. Computers can produce graphics in charts, pictures, animation, color, and three dimensions if the necessary peripherals and programming devices are available. They can be used to manipulate text, correct spelling, critique grammar, and speak several languages. When connected with telephone lines or other cabling, they can share information. Instructed properly, computers can make "intelligent" decisions. They do all of this accurately, with speed and increasing flexibility.

Computer Applications

At the simplest level, as intelligent tutors offering computer aided instruction (CAI), computers provide only modest support of program goals for able learners. Instruction is individually paced, different learning styles may be accommodated, and some self-confidence may be gained. However, this use of computers fares poorest in the research. Teachers are still better at traditional stimulus/response instruction.

At a higher level, students are provided opportunities to do research and apply complex thinking skills by working with real problems and computer simulations. Learning becomes fun and more challenging. Some of the best software on the market falls into this category, and the results of time spent with computers in this mode are not easily dismissed.

Students are taught programming languages that aid them in beginning to turn a computer into a real tool. The LOGO languages and the concepts introduced in *Mindstorms* (Papert, 1980) and the more advanced *Turtle Geometry* (Abelson & diSessa, 1984) provide platforms for students to invent their own syntax, integrate knowledge, and share ideas. All students in gifted and talented programs should be introduced to such computer applications and programming.

Unfortunately, many students never move beyond this level. The newfound mastery of the power of the computer is seductive. Every problem presented can be solved. The graphics are spectacular. Nonusers are awed, and even the teachers are often surpassed; "hackers" emerge. However, little is to be gained from merely a faster CPU, better resolution, gigabytes of storage, or technology. The real power of the computer derives from the quality of the questions students ask and attempt to answer.

Asking Better Questions

In November, 1987, Control Data Corporation challenged students across the country to put their best questions forward as part of a contest to promote a new supercomputer. They wanted to know what students were interested in and how they would use a computer to discover, explore, and collaborate. Teachers were asked to spend the next 6 months building and guiding learning experiences that reinforced and clarified the students' topics. Teams were formed—each student member having an independent project—to pool strategies, share learning, and expand alternatives. Time was spent in the library reading professional journals and investigating tangents. At the end of the school year the students with the best-developed questions (still no solutions) were invited to spend the summer in Minnesota working with a powerful computer and mentors from Control Data staff. After nearly 8 months of investigation, the students reported what they had learned to a panel of scientists who read each paper and spent several hours listening to the students and sharing their own knowledge and experience.

The impact of that program on each of the 1,475 schools that participated nationwide was remarkable. Computers had been used to frame better questions, define important problems, and stretch students farther than they or their teachers had thought possible. These gifted and talented students combined their individual strengths and needs with a conglomerate of people, resources, and technologies that changed their learning experience. It is important to note that the use of computers, although significant, was not the focus of the program. The students were not studying computer science or applications.

Gifted and Talented Students Work Smart

When computers are used to support program goals and meet individual student needs, they can help gifted students work smart.

- When choices are provided and experimentation allowed, individual learning styles and preferences can be accommodated and enhanced through the flexibility of the computer to interact with pictures, words, numbers, or any other medium the student is most comfortable with. The flexibility of the technology is the key concept. Different students find different word processors, graphics packages, databases, and spreadsheets easier to use.
- Structured experiences designed by well-trained teachers can help students use computers to develop strengths and overcome or neutralize weaknesses. Word processors do improve writing and expression of ideas. Databases can be as rigid or open as the student needs. Solving problems and answering questions are satisfying outcomes. Students grow in confidence as they build their repertoire of skills.
- Computers can be used to match students' paces. They are patient and will hold on to an idea for a long time. They do more complex tasks when students are ready to use them in more complex ways. They provide information when students are ready for it.
- When students assume responsibility for the process, they work smarter. Computers serve people. People define problems, set goals and objectives, and determine roles. The better students understand the learning process, the better they will use technology.
- People learn from people. People are on the other end of the information and ideas accessed through a computer. Students have contact with these people via software, bulletin boards, or face to face in discussions and group projects. Students can meet a lot of smart people through computers.

References

Abelson, H., & diSessa, A. (1984). *Turtle geometry.* Cambridge, MA: MIT Press.

Cox, J., Daniel, N., & Boston, B. (1985). *Educating able learners.* Austin: University of Texas Press.

Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences.* New York: Basic Books.

Getzels, J., & Csikszentmihalyi, M. (1976). *The creative vision: A longitudinal study of problem finding in art.* New York: Wiley.

Holden, C. (1989, May 26). Computers make slow progress in class. *Science*, pp. 906–909.

Papert, S. (1980). *Mindstorms: Children, computers, and powerful ideas.* New York: Basic Books.

Renzulli, J. S. (1977). *The enrichment triad model: A guide for developing defensible programs for the gifted and talented.* Wethersfield, CT: Creative Learning Press.

Treffinger, D. (1986). *Blending gifted education with the total school program.* East Aurora, NY: D.O.K.

Prepared by Geoffrey Jones, Principal, Thomas Jefferson High School for Science and Technology, Fairfax County Public Schools, Virginia.

This publication was prepared with funding from the U.S. Department of Education, Office of Educational Research and Improvement, under contract no. RI88062007. The opinions expressed in this report do not necessarily reflect the positions or policies of OERI or the Department of Education.

Clearinghouse on Handicapped and Gifted Children
THE COUNCIL FOR EXCEPTIONAL CHILDREN
1920 Association Drive • Reston, VA 22091-1589
FAX (703) 264-9494

ERIC Digest

DIGEST #E484 **EDO-EC-90-3**

FOSTERING ACADEMIC CREATIVITY IN GIFTED STUDENTS

What Is Meant by Academic Creativity?

Academic creativity is a way of thinking about, learning, and producing information in school subjects such as science, mathematics, and history. Few experts agree on a precise definition, but when we say the word, everyone senses a similar feeling. When we are creative, we are aware of its special excitement.

Creative thinking and learning involve such abilities as evaluation (especially the ability to sense problems, inconsistencies, and missing elements); divergent production (e.g., fluency, flexibility, originality, and elaboration); and redefinition. Creative learning is a natural, healthy human process that occurs when people become curious and excited. In contrast, learning by authority requires students to use thinking skills such as recognition, memory, and logical reasoning—the abilities most frequently assessed by traditional tests of intelligence and scholastic aptitude. Children prefer to learn in creative ways rather than just memorizing information provided by a teacher or parents. They also learn better and sometimes faster.

Three questions illustrate the difference between learning information provided by an adult or textbook and creative learning:

1. In what year did Columbus discover America? (The answer, 1492, requires recognizing and memorizing information.)
2. How are Columbus and an astronaut similar and different? (The answer requires more than memorization and understanding; it requires students to think about what they know.)
3. Suppose Columbus had landed in California. How would our lives and history have been different? (The answer requires many creative thinking skills including imagining, experimenting, discovering, elaborating, testing solutions, and communicating discoveries.)

Creative Behavior of Young Children

Young children are naturally curious. They wonder about people and the world. By the time they enter preschool, they already have a variety of learning skills acquired through questioning, inquiring, searching, manipulating, experimenting, and playing. They are content to watch from a distance at first; however, this does not satisfy their curiosity. Children need opportunities for a closer look; they need to touch; they need time for the creative encounter.

We place many restrictions on children's desire to explore the world. We discourage them by saying "Curiosity killed the cat." If we were honest, we would admit that curiosity makes a *good* cat and that cats are extremely skilled in testing the limits and determining what is safe and what is dangerous. Apparently children, as well as cats, have an irresistible tendency to explore objects, and this very tendency seems to be the basis for the curiosity and inventiveness of adults. Even in testing situations, children who do the most manipulating of objects produce the most ideas and the largest number of original ideas.

Creative Behavior of School-Age Children

Until children reach school age, it is generally assumed that they are highly creative, with vivid imaginations, and that they learn by exploring, risking, manipulating, testing, and modifying ideas. Although teachers and administrators sometimes believe that it is more economical to learn by authority, research suggests that many things (although not all) can be learned more effectively and economically in creative ways rather than by authority (Torrance, 1977).

What Can Teachers Do?

Wise teachers can offer a curriculum with plenty of opportunities for creative behaviors. They can make assignments that call for original work, independent learning, self-initiated projects, and experimentation. Using curriculum materials that provide progressive warm-up experiences, procedures that permit one thing to lead to another, and activities that make creative thinking both legitimate and rewarding makes it easier for teachers to provide opportunities for creative learning.

The following are some things caring adults can do to foster and nurture creativity:

- We can teach children to appreciate and be pleased with their own creative efforts.
- We can be respectful of the unusual questions children ask.
- We can be respectful of children's unusual ideas and solutions, for children will see many relationships that their parents and teachers miss.
- We can show children that their ideas have value by listening to their ideas and considering them. We can encourage children to test their ideas by using them and communicating them to others. We must give them credit for their ideas.
- We can provide opportunities and give credit for self-initiated learning. Overly detailed supervision, too much reliance on prescribed curricula, failure to appraise

learning resulting from a child's own initiative, and attempts to cover too much material with no opportunity for reflection interfere seriously with such efforts.

- We can provide chances for children to learn, think, and discover without threats of immediate evaluation. Constant evaluation, especially during practice and initial learning, makes children afraid to use creative ways to learn. We must accept their honest errors as part of the creative process.
- We can establish creative relationships with children—encouraging creativity in the classroom while providing adequate guidance for the students.

What Can Parents Do?

It is natural for young children to learn creatively by dancing, singing, storytelling, playing make-believe, and so forth. One of the first challenges to creativity may be formal schooling. By this time parents, as well as teachers, appreciate conforming behaviors such as being courteous and obedient, following rules, and being like others. While these are desirable traits to some extent, they may also destroy a child's creative potential.

The following are some positive ways parents can foster and nurture the growth of creativity:

- Encourage curiosity, exploration, experimentation, fantasy, questioning, testing, and the development of creative talents.
- Provide opportunities for creative expression, creative problem-solving, and constructive response to change and stress.
- Prepare children for new experiences, and help develop creative ways of coping with them.
- Find ways of changing destructive behavior into constructive, productive behavior rather than relying on punitive methods of control.
- Find creative ways of resolving conflicts between individual family members' needs and the needs of the other family members.
- Make sure that every member of the family receives individual attention and respect and is given opportunities to make significant, creative contributions to the welfare of the family as a whole.
- Use what the school provides imaginatively, and supplement the school's efforts.
- Give the family purpose, commitment, and courage. (Torrance, 1969, p. 59)

How Adults "Kill" Creativity:

- Insisting that children do things the "right way." Teaching a child to think that there is just one right way to do things kills the urge to try new ways.
- Pressuring children to be realistic, to stop imagining. When we label a child's flights of fantasy as "silly," we bring the child down to earth with a thud, causing the inventive urge to curl up and die.
- Making comparisons with other children. This is a subtle pressure on a child to conform; yet the essence of creativity is freedom to conform or not to conform.
- Discouraging children's curiosity. One of the surest indicators of creativity is curiosity; yet we often brush questions aside because we are too busy for "silly" questions. Children's questions deserve respect.

References

Torrance, E. P. (1969). *Creativity.* Sioux Falls, ND: Adapt Press.

Torrance, E. P. (1977). *Creativity in the classroom.* Washington, DC: National Education Association.

Torrance, E. P., & Goff, K. (1989). A quiet revolution. *Journal of Creative Behavior, 23*(2), 136–145.

Resources for Parents and Teachers

There are numerous textbooks, workshops, instructional materials, videotapes, seminars, and other resources for use in creative teaching. There are publishers, magazines, and journals that focus on creativity and creative thinking. Some of them include the following:

Publishers

Creative Learning Press, P.O. Box 320, Mansfield Center, CT 96250

D.O.K. Publishers, P.O. Box 605, East Aurora, NY 14052

Foxtail Press, P.O. Box 2996, La Habra, CA 90632-2996

Good Apple, P. O. Box 299, Carthage, IL 62321-0299

Opportunities for Learning, 2041 Nordhoff Street, Chatsworth, CA 91311

Scholastic Testing Service, Inc., 480 Meyer Road, P. O. Box 1056, Bensenville, IL 60106-8056

Teachers and Writers Collaborative, 5 Union Square West, New York, NY 10003

Trillium Press. P. O. Box 209, Monroe, NY 10950

Zephyr Press, P. O. Box 13448, Tucson, AZ 85732-3448

Journals

The Creative Child and Adult Quarterly, 8080 Springvalley Drive, Cincinnati, OH 45236

The Journal of Creative Behavior, 1050 Union Road, Buffalo, NY 14224 (Source: Torrance & Goff, 1989)

Prepared by E. Paul Torrance, Alumni Foundation Distinguished Professor Emeritus, University of Georgia, and Kathy Goff, Research Assistant, University of Georgia, and author of innovative instructional material.

This publication was prepared with funding from the U.S. Department of Education, Office of Educational Research and Improvement, under contract no. RI88062007. The opinions expressed in this report do not necessarily reflect the positions or policies of OERI or the Department of Education.

ERIC Clearinghouse on Handicapped and Gifted Children
THE COUNCIL FOR EXCEPTIONAL CHILDREN
1920 Association Drive • Reston, VA 22091-1589
FAX (703) 264-9494

ERIC Digest

DIGEST #E485

EDO-EC-90-4

DEVELOPING LEADERSHIP IN GIFTED YOUTH

Leadership Development and Gifted Students

All cultures need role models and leaders. Most of us agree that professions such as medicine, technology, education, business and industry, politics, and the arts need people who can use intelligence, creativity, and critical judgment. The role of parents and educators is critical in assisting with the development of leadership attitudes and skills in gifted youth.

Leadership has been designated a talent area in federal and state definitions of gifted students who require differentiated programs, yet it remains the least discussed of the curricular areas for these students in the literature, and it is not well defined.

Characteristics of Leadership in Gifted Youth

Few gifted programs identify students with high leadership potential or incorporate leadership education into their curricula. However, many characteristics of gifted youth enable them to profit from leadership development. Those characteristics include the following:

- The desire to be challenged.
- The ability to solve problems creatively.
- The ability to reason critically.
- The ability to see new relationships.
- Facility of verbal expression.
- Flexibility in thought and action.
- The ability to tolerate ambiguity.
- The ability to motivate others.

Parents and the Development of Leadership

Preparing young people for leadership responsibility begins in the home with an enriched environment that offers opportunities for children to acquire broad interests, self-esteem, and the insights and skills that characterize leaders. Parents can provide their children with support and encouragement as they participate in a wide variety of home and community activities. Parents should encourage their children to be involved in the selection, planning, execution, and evaluation of family activities ranging from a day at the zoo to a vacation overseas. Youngsters should also be encouraged to plan, initiate, and complete a variety of self-evaluated individual projects, but these skills are not learned automatically. They must be patiently taught and modeled by parents in the home.

Discussion and debate about current events and other topics foster independent thinking and nurture leadership potential. Parents who listen openly and thoughtfully without expecting children to embrace their social, political, and economic views are demonstrating leadership characteristics. Mutual respect, objectivity, empathy, and understanding are highly valued by gifted young people, particularly those who need a safe place to test their ideas.

Opportunities for decision making at an early age will help to foster the critical reasoning skills necessary to be an effective leader. Inappropriate decisions by children and youth, although difficult for parents to accept, may enhance future decision-making skills when self-evaluated.

Infusing Leadership Concepts and Skills Into the Curriculum

Major emphasis should be placed on leadership development in all academic areas, including the fine and performing arts. Thematic curriculum units and reading lists should include biographies and autobiographies of outstanding leaders. Students should be encouraged to analyze and evaluate the motivation, contributions, and influences of each leader and assess the leadership styles employed. Major events and family and other influences important in the life of each leader should be emphasized.

Sciences. Physical and biological sciences, mathematics, and social sciences provide unique opportunities for projects in which initiating, planning, critical thinking, creative problem solving, and decision making can be developed. They are rich with opportunities to learn about leaders who have influenced such areas as government and politics, science and technology, humanities and the arts, business and industry, philosophy and religion, and health science and medicine. Students can learn how their interests, passions, and abilities can develop into careers. They can compare the contributions of others with their own value systems. For example, many leaders have been concerned about poverty and the human condition.

Humanities. Language arts, speech, English, and other courses that emphasize oral and written communication provide opportunities for potential leaders to learn how to present ideas clearly and persuasively. Preparing and presenting speeches, listening to and critiquing presentations, writing news reports and editorials for school and other local publications, preparing for and engaging in debates, leading conference and discussion sessions, and participating in school and other election campaigns are only a few of the many options available. Group activities provide opportunities for young people to learn how to help others feel important and valued, accept their contributions, keep discussions relevant, and occasionally follow rather than lead.

Arts. Students can learn leadership skills and gain inspiration from talented people of the past and present who have enriched all of us through their contributions in the fine and performing arts. Their creative works, the trends they initiated, and the enduring results of their efforts are worthy of study, as are their lives and the circumstances under which their work came to fruition.

Other School Options for Leadership Development

Several strategies strengthen and broaden educational experiences for gifted youth. Instructional units on leadership development should be provided at each grade level in a resource room or pullout administrative arrangement. Some secondary schools offer structured credit courses on leadership. Having students prepare and periodically update personal plans for leadership development, including provisions for obtaining the experiences set forth in their plans, is another promising activity. The value of this experience is enhanced when students share individual plans in group sessions, brief the group on their purpose, revise plans if the critique brings forth acceptable suggestions, report to peers on progress made after following the plans for a period of time, and evaluate the plans using self-designed criteria.

Mentorships and internship programs provide opportunities for youth to work with adult community leaders who are willing to help identify, develop, and nurture future leaders.

Leadership Through Extracurricular Activities

Since leadership is learned over time through involvement with others, extracurricular activities provide fertile ground for nurturing future leaders. Group participation offers unique opportunities for young people to belong, support others, and learn a variety of leadership styles. Students learn how to encourage others, create group spirit, and resolve conflict. They begin to understand diverse attitudes, skills, and talents and how to interact effectively with a diversity of people while working toward a common goal.

Leadership in extracurricular activities has been found to be more highly correlated with adult leadership than with academic achievement. A 10-year study conducted with 515 high school student leaders revealed that almost two-thirds of them participated in out-of-school organizations and athletics and more than half participated in fine arts activities.

Although there are many organized extracurricular activities for youth, those who want to develop their leadership potential can do so through less formal methods. Individuals or groups can plan special projects or a leadership plan by setting goals, objectives, and timelines toward a mission of improving some area of the school or community. Skills such as seeking all available information, defining a group task, and devising a workable plan may be developed through any community project. No matter how small or large the goal, the process involved in devising and implementing the plan develops leadership potential.

Leadership is much more than being elected or appointed to a position, and it is acquired most effectively through practice. Educators, parents, and other concerned adults who are interested in the development of leadership in gifted youth can make a difference in the lives of these students by providing them with opportunities to realize their leadership potential.

Resources

Feldhusen, J. F., & Kennedy, D. M. (1988). Preparing gifted youth for leadership roles in a rapidly changing society. *Roeper Review, 10*(4), 226–230.

Foster, W. H., & Silverman, L. (1988). Leadership curriculum for the gifted. In J. VanTassel-Baska, J. Feldhusen, K. Seeley, G. Wheatley, L. Silverman, & W. Foster (Eds.), *Comprehensive curriculum for gifted learners* (pp. 356–380). Boston, MA: Allyn and Bacon.

Gallagher, J. J. (1982). *A leadership unit.* New York: Trillium Press.

House, C. (1980). *Leadership series.* Coeur d'Alene, ID: Listos Publications.

Karnes, F. A., & Chauvin, J. C. (1985). *Leadership skills development program.* East Aurora, NY: United D. O. K.

Karnes, F. A., & Chauvin, J. C. (1986). The leadership skills: Fostering the forgotten dimension of giftedness. *G/C/T, 9*(3), 22–23.

Karnes, F. A., & D'Ilio, V. R. (1989). Personality characteristics of student leaders. *Psychological Reports, 64,* 1125–1126.

Karnes, F. A., & Meriweather, S. (1989). Developing and implementing a plan for leadership: An integral component for success as a leader. *Roeper Review, 11*(4), 214–217.

Parker, J. P. (1983). The Leadership Training Model: Integrated curriculum for the gifted. *G/C/T, 29,* 8–13.

Plowman, P. D. (1981). Training extraordinary leaders. *Roeper Review, 3*(3), 13–16.

Richardson, W., & Feldhusen, J. (1986). *Leadership education: Developing skills for youth.* New York: Trillium Press.

Roets, L. S. (1981). *Leadership: A skills training program ages 8-18.* New Sharon, IA: Leadership Publishers.

Sisk, D. (1986). Social studies for the future: The use of video for developing leadership. *Gifted Child Quarterly, 30*(4), 182-185.

Sisk, D. A., & Rosselli, H. (1987). *Leadership: A special type of giftedness.* New York: Trillium Press.

Sisk, D. A., & Shallcross, D. J. (1986). *Leadership: Making things happen.* Buffalo, NY: Bearly Limited.

Prepared by Frances A. Karnes, Professor, Department of Special Education, and Director, The Center for Gifted Studies, University of Southern Mississippi, Hattiesburg, and Suzanne M. Bean, Assistant Professor, Mississippi University for Women, Columbus.

This publication was prepared with funding from the U.S. Department of Education, Office of Educational Research and Improvement, under contract no. RI88062007. The opinions expressed in this report do not necessarily reflect the positions or policies of OERI or the Department of Education.

Clearinghouse on Handicapped and Gifted Children
THE COUNCIL FOR EXCEPTIONAL CHILDREN
1920 Association Drive • Reston, VA 22091-1589
FAX (703) 264-9494

ERIC Digest

DIGEST #E486 EDO–EC–90–5

MENTOR RELATIONSHIPS AND GIFTED LEARNERS

> *If we want them to achieve, we must link them with achievers.... One plus one—Pass it on.*
>
> H. Weinberg, The Public Television Outreach Alliance

One of the most valuable experiences a gifted student can have is exposure to a mentor who is willing to share personal values, a particular interest, time, talents, and skills. When the experience is properly structured and the mentor is a good match for the student, the relationship can provide both mentor and student with encouragement, inspiration, new insights, and other personal rewards.

The idea of mentoring is as old as mankind. Ancient Greece introduced the concept, and it was institutionalized during the Middle Ages. The term *mentor* does not imply an internship, an apprenticeship, or a casual hit-or-miss relationship in which the student simply spends time in the presence of an adult and information is transmitted (Boston, 1979). Internships and apprenticeships are valuable because they allow students to learn new skills and investigate potential career interests. A mentorship, on the other hand, is a dynamic shared relationship in which values, attitudes, passions, and traditions are passed from one person to another and internalized. Its purpose is to transform lives (Boston, 1976).

Research and case studies focusing on mentors and mentorships often address the effects of the mentor in terms of career advancement, particularly for women (Kerr, 1983). The research emphasis on professional advancement and success takes priority over clarifying the basic characteristics of the relationship and its importance to gifted students (Kaufmann, Harrel, Milam, Woolverton, & Miller, 1986). Kaufmann's (1981) study of Presidential Scholars from 1964 to 1968 included questions pertaining to the nature, role, and influence of their most significant mentors. Having a role model, support, and encouragement were the most frequently stated benefits. Respondents also stated that they strongly benefited from mentors who set an example, offered intellectual stimulation, communicated excitement and joy in the learning process, and understood them and their needs.

Kaufmann's research also underscored the critical importance of mentors for gifted girls. The study, conducted 15 years after these students graduated from high school, indicated that when the earning powers of the women were equal to those of the men, the women had had one or more mentors. In other words, the presence of a mentor may equalize earning power.

Mentor relationships with dedicated scholars, artists, scientists, or businesspeople are highly suitable for gifted adolescents, particularly those who have mastered the essentials of the high school curriculum. Many of these students have multiple potentials (they like everything and are good at everything) and may encounter college and career planning problems if they cannot establish priorities or set long-term goals (Berger, 1989; Frederickson & Rothney, 1972; Kerr, 1985). Such students may have more options and alternatives than they can realistically consider. Parents often notice that mentors have a maturing effect: Students suddenly develop a vision of what they can become, find a sense of direction, and focus their efforts. Some exemplary programs were described by Cox, Daniel, and Boston (1985) in *Educating Able Learners*.

Students from disadvantaged populations may also benefit strongly from mentor relationships (McIntosh & Greenlaw, 1990). Mentor programs throughout the nation (e.g., Washington, DC, Chicago, IL, Austin, TX, and Denver, CO) match bright disadvantaged youngsters of all ages with professionals of all types. Student self-confidence and aspirations are raised to new heights as the relationship grows and develops. Young adolescents gain a sense of both the lifestyle associated with the mentor's profession and the educational course that leads to it. These relationships extend far beyond the boundaries of local schools, where they often start, as mentors become extended family members and, later, colleagues. Said one mentor, in a Public Broadcasting Service documentary film (James & Camp, 1989), "This is not just a business relationship. I specialize in [student's name]." The mentor, a renowned journalist who works with one student at a time and offers workshops in mentoring, went on to say, "We unlock the future. Our relationship is valuable at various stages of life and in different ways." The student responded, "I'm glad he's so critical [of my work]. A mentor sees things in you, things you may not have seen yourself."

A true mentor relationship does not formally end. In this instance, both parties were energized by the process and said that they have continued to learn from one another, growing personally and professionally. They thought of one another as colleagues, although the student, currently a journalist in a large city, still relies on her mentor when she needs advice on a news story. They communicate by fax machine. Each has made an indelible imprint upon the life of the other.

The following guidelines, adapted from *Gifted Children Monthly* (Kaufmann, 1988), may be useful to parents and educators who wish to explore mentor relationships for gifted youngsters.

Guidelines for Educators and Parents

- Identify what (not whom) a youngster needs. The student may want to learn a particular skill or subject or want someone to offer help in trying out a whole new lifestyle.
- Decide with the youngster whether he or she really wants a mentor. Some might just want a pal, advisor, or

exposure to a career field, rather than a mentor relationship that entails close, prolonged contact and personal growth.

- Identify a few mentor candidates. If access to local resources is limited, long-distance mentors are an option. *Who's Who* directories and the *Encyclopedia of Associations* are rich sources of potential mentors.
- Interview the mentors. Find out whether they have enough time and interest to be real role models, whether their style of teaching would be compatible with the youngster's learning style, and whether they are excited about their work and want to share their skills. Be explicit about the student's abilities and needs and about the potential benefits the mentor might derive from working with the young person.
- Prepare the youngster for the mentorship. Make sure the youngster understands the purpose of the relationship, its benefits and limitations, and the rights and responsibilities that go along with it. Make sure you understand these things as well.
- Monitor the mentor relationship. If, after giving the mentorship a fair chance, you feel that the youngster is not identifying with the mentor, that self-esteem and self-confidence are not being fostered, that common goals are not developing, or that expectations on either side are unrealistic, it might be wise to renegotiate the experience with the youngster and the mentor. In extreme cases seek a new mentor.

Questions to Ask Students

- Does the student want a mentor? Or does the student simply want enrichment in the form of exposure to a particular subject or career field?
- What type of mentor does the student need?
- Is the student prepared to spend a significant amount of time with the mentor?
- Does the student understand the purpose, benefits, and limitations of the mentor relationship?

To identify mentor candidates, use your own circle of friends and their contacts, other parents of gifted students, local schools, local universities, businesses and agencies, professional associations, local arts groups, and organizations such as the American Association of Retired Persons. State Governors' Schools and magnet high schools for gifted students are also potential sources of information on mentors and mentorship programs.

Questions to Ask Mentors

- Does the mentor understand and like working with gifted youngsters and adolescents?
- Is the mentor's teaching style compatible with the student's learning style?
- Is the mentor willing to be a real role model, sharing the excitement and joy of learning?
- Is the mentor optimistic, with a "sense of tomorrow"?

Cox and Daniel (1983) and Cox, Daniel, and Boston (1985) have provided useful guidelines for establishing mentor programs.

For more information, contact Gray and Associates, in care of the International Centre for Mentoring, 4042 West 27th Avenue, Vancouver, BC, Canada V6S 1R7. If you want to become a mentor, call your local volunteer coordinating agencies or clearinghouses such as United Way.

One plus one — Pass it on.

References

Berger, S. (1989). *College planning for gifted students.* Reston, VA: The Council for Exceptional Children.

Boston, B. (1976). *The sorcerer's apprentice: A case study in the role of the mentor.* Reston, VA: ERIC Clearinghouse on Handicapped and Gifted Children/The Council for Exceptional Children.

Boston, B. (1979). The mentor and the education of the gifted and talented. In J. H. Orloff (Ed.), *Beyond awareness: Providing for the gifted child,* (pp. 36–41). Proceedings of the Fourth Annual Northern Virginia Conference on Gifted/Talented Education, Northern Virginia Council for Gifted/Talented Education, Falls Church, VA.

Cox, J., & Daniel, N. (1983). The role of the mentor. *G/C/T, 29,* 54–61.

Cox, J., Daniel, N., & Boston, B. (1985). *Educating able learners.* Austin, TX: University of Texas Press.

Frederickson, R. H., & Rothney, J. W. M. (1972). *Recognizing and assisting multipotential youth.* Columbus, OH: Merrill.

James, D. J. (Producer), & Camp, J. (Director). (1989, October 18). *Mentors, a match for success* [film]. Washington, DC.: WETA, Channel 26, Greater Washington Educational Telecommunications Association.

Kaufmann, F. (1981). The 1964-1968 Presidential Scholars: A follow-up study. *Exceptional Children, 48,* 164–169.

Kaufmann, F. (1988). Mentors provide personal coaching. *Gifted Child Monthly 9* (1), 1–3.

Kaufmann, F., Harrel, G., Milam, C. P., Woolverton, N., & Miller, J. (1986). The nature, role, and influence of mentors in the lives of gifted adults. *Journal of Counseling and Development, 64,* 576–578.

Kerr, B. (1983, September). Raising the career aspirations of gifted girls. *The Vocational Guidance Quarterly, 32,* 37–43.

Kerr, B. (1985). *Smart girls, gifted women.* Columbus, OH: Ohio Psychology.

McIntosh, M. E., & Greenlaw, M. J. (1990). Fostering the postsecondary aspirations of gifted urban minority students. In S. Berger (Ed.), *ERIC Flyer Files.* Reston, VA: ERIC Clearinghouse on Handicapped and Gifted Children.

Weinberg, H., (Producer) & Weinberg, H. (Director). (1989, October 18). *One plus one* [film]. The Public Television Outreach Alliance, Corporation for Public Broadcasting; QED Communications.

Additional Reading

Goertzel, M., Goertzel, V., & Goertzel, T. (1978). *300 eminent personalities.* San Francisco: Jossey-Bass.

Torrance, E. P. (1984). *Mentor relationships: How they aid creative achievement, endure change and die.* New York: Bearly Limited.

Prepared by Sandra L. Berger, author of *College Planning for Gifted Students* (1989) and editor of *ERIC Flyer Files on Gifted Learners* (1990).

This publication was prepared with funding from the U.S. Department of Education, Office of Educational Research and Improvement, under contract no. RI88062007. The opinions expressed in this report do not necessarily reflect the positions or policies of OERI or the Department of Education.

ERIC
Clearinghouse on Handicapped and Gifted Children
THE COUNCIL FOR EXCEPTIONAL CHILDREN
1920 Association Drive • Reston, VA 22091-1589
FAX (703) 264-9494

ERIC Digest

DIGEST #E487 **EDO–EC–90–6**

NURTURING GIFTEDNESS IN YOUNG CHILDREN

Versions of the following conversation can often be heard when young gifted children start school. "Bill doesn't belong in kindergarten!" the parent cries. "Look, he's reading at the fourth grade level and has already learned two-column addition." The teacher or principal, having already decided this is a "pushy parent," replies, "Well, Mrs. Smith, Bill certainly doesn't belong in first grade; he hasn't learned to tie his shoelaces, and he can't hold a pencil properly, and he had a tantrum yesterday in the hall."

The problem in this continuing controversy is that both parties are usually correct. Some gifted children entering kindergarten have acquired academic skills far beyond those of their age mates. Such children master the academic content of kindergarten when they are 3 years old. However, their physical and social development may be similar to that of other 5 year olds, making an accelerated placement a mismatch as well. The usual solution is to place a child like Bill in a program matched to his weaknesses, rather than his strengths. Bill usually ends up in kindergarten, where his advanced intellectual development becomes a frustration to his teacher, an embarrassment to his peers, and a burden to Bill.

Educators justify this placement by saying, "Bill needs socialization; he's already so far ahead academically, he doesn't need anything in that area." There are two major problems with this rationale. First, educators are essentially telling such students that there is no need for them to learn anything in school. The second problem is revealed by examining the so-called socialization experienced by a brilliant 5-year-old like Bill in a kindergarten class of 25 to 30 students. A major component of early socialization involves a child's feeling that she or he is accepted by others—teachers and children alike. If the teacher does not validate a gifted child's advanced abilities and intellectual interests by making them part of the ongoing curriculum, the child experiences no feelings of acceptance from the teacher. If, as is highly likely, this child makes the additional discovery that she or he is quite different from most classmates and that communication is extremely difficult because of differences in vocabulary and modes of expression, then the child misses peer acceptance as well. In fact, this first school experience, which should furnish the impetus for future enthusiasm about learning, can be a dismal failure for the brilliant child in a lockstep kindergarten program. Often these children learn to hide or deny their abilities so as to fit in better with the other children. Or, they may develop behavioral problems or pychosomatic symptoms such as stomachaches and headaches, causing parents to confront the school with justifiable concern.

Understanding Uneven Development

It is important to remember that these children very often do not develop evenly. In fact, young gifted children frequently show peaks of extraordinary performance rather than equally high skill levels in all cognitive areas. The child who learns to read at age 3 or who shows unusually advanced spatial reasoning ability, for example, may not be the child with the highest IQ or the earliest language development. Unique patterns of development can be observed within a group of gifted children, and uneven development is frequently evident in the pattern of a single child. In some cases, it seems as though children's abilities develop in spurts, guided by changes in interest and opportunity. Reading ability, for example, might develop almost overnight. Children who know all their letters and letter sounds by age 2 1/2 may remain at that level for some time, perhaps until age 4 or 5, and then in a matter of months develop fluent reading skills at the third or fourth grade level.

Another area of unevenness in the development of gifted young children is found in the relationship between advanced intellectual development and development of physical and social skills. Evidence seems to indicate that intellectually gifted children's performance in the physical domain may only be advanced to the extent that the physical tasks involve cognitive organization. And, although intellectually advanced children tend to possess some advanced social-cognitive skills, they do not necessarily demonstrate those skills in their social behavior. In other words, they may understand how to solve social conflicts and interact cooperatively but not know how to translate their understanding into concrete behavior.

It is not uncommon to find gifted young children experiencing a vast gap between their advanced intellectual skills and their less advanced physical and emotional competencies. For example, 4- and 5-year-old children may converse intelligently about abstract concepts such as time and death and read fluently at the fourth grade level, yet find it difficult to hold a pencil or share their toys with others.

Often these uneven developmental levels can lead to extreme frustration, as children find that their limited physical skills are not sufficiently developed to carry out the complex projects they imagined. These children may throw tantrums or even give up on projects without trying. Adult guidance in developing coping strategies can help such children set more realistic goals for themselves and learn how to solve problems effectively when their original efforts do not meet their high expectations.

Adults, too, can be misled by children's advanced verbal ability or reasoning skill into expecting equally advanced behavior in all other areas. It is unsettling to hold a high-level conversation with a 5 year old who then turns around and punches a classmate who stole her pencil. Sometimes young children's age-appropriate social behavior is interpreted as willful or lazy by parents and teachers whose expectations are unrealistically high. The only accurate generalization that can be made about the characteristics of intellectually gifted young children is that they demonstrate their unusual intellectual skills in a wide variety of ways and that they form an extremely heterogeneous group with respect to interests, skill levels in particular areas, social development, and physical abilities.

Understanding the unique developmental patterns often present in gifted young children can help both parents and teachers adjust their expectations of academic performance to a more reasonable level.

Choosing a Program or School

One of the few psychological truths educators and psychologists agree on is that the most learning occurs when an optimal match between the learner's current understanding and the challenge of new learning material has been carefully engineered. Choosing a program or school for a gifted child who masters ideas and concepts quickly but behaves like a typical 4- or 5-year-old child is indeed a challenge.

Many intellectually gifted children master the cognitive content of most preschool and kindergarten programs quite early. They come to school ready and eager to learn concepts not usually taught until an older age. However, academic tasks designed for older children often require the learner to carry out teacher-directed activities while sitting still and concentrating on written worksheets. Young children, no matter how bright they are, require active involvement with learning materials and often do not have the writing skills required for above-grade-level work.

Since many gifted children will hide their abilities in order to fit in more closely with classmates in a regular program, teachers may not be able to observe advanced intellectual or academic abilities directly. If a kindergartner enters school with fluent reading ability, the parent should share this information at the beginning of the year instead of waiting until the end of the year to complain that the teacher did not find out that the child could read. When parents and teachers pool their observations of a child's skills, they begin to work together to develop appropriate educational options for nurturing those abilities. Parents whose children have some unusual characteristics that will affect their learning needs have an obligation to share that information with educators, just as educators have an obligation to listen carefully to parent concerns.

When the entry level of learners is generally high but extremely diverse, an appropriate program must be highly individualized. Children should be encouraged to progress at their own learning rate, which will result in most cases in subject matter acceleration. The program should be broadly based, with planned opportunities for development of social, physical, and cognitive skills in the informal atmosphere of an early childhood classroom.

One primary task of teachers is to make appropriately advanced content accessible to young children, taking into account individual social and physical skills. Lessons can be broken into short units, activities presented as games, and many concepts taught through inquiry-oriented dialogue and experimentation with manipulatable materials. Language experience activities in reading and the use of manipulatable mathematics materials, as described in products such as *Mathematics Their Way* (Baratta-Lorton, 1976), are good examples of appropriate curriculum approaches.

An appropriate learning environment should also offer a gifted young child the opportunity to discover true peers at an early age. Parents of gifted children frequently find that, while their child can get along with other children in the neighborhood, an intense friendship is likely to develop with a more developmentally equal peer met in a special class or interest-based activity. Such parents may be dismayed to discover that this best friend does not live next door but across town, and they may wonder whether or not to give in to their child's pleas for inconvenient visits. Probably one of the most supportive activities a parent can engage in is to help a child find a true friend and make the effort required to permit the friendship to flower.

In looking for an appropriate program for their gifted preschooler, then, parents must be aware of the learning needs of young children and not be misled by so-called experts who advocate rigid academic approaches with an emphasis on rote memorization and repetition. Rather, wise parents will look for open-endedness, flexible grouping, and opportunities for advanced activities in a program that allows their child to learn in the company of intellectual peers.

Resources

Allen, R. V., & Allen, C. (1970). *Language experiences in reading* (Vols.1 & 2). Chicago: Encyclopedia Britannica Press.

Baratta-Lorton, M. (1976). *Mathematics their way: An activity center mathematics program for early childhood education.* Menlo Park, CA: Addison-Wesley.

Roedell, W. C. (1989). Early development of gifted children. In J. VanTassel-Baska, & P. Olszewski-Kubilius (Eds.), *Patterns of influence on gifted learners* (pp.13–28). New York: Teachers College Press.

Roedell, W. C., Jackson, N. E., & Robinson, H. B. (1980). *Gifted young children.* New York: Teachers College Press.

Spivack, G., & Shure, M. B. (1974). *Social adjustment of young children.* San Francisco: Jossey-Bass.

Additional Reading

Smutny, J. F., Veenker, K., & Veenker, S. (1989). *Your gifted child: How to recognize and develop the special talents in your child from birth to age seven.* A practical sourcebook containing a wealth of information for parents and educators of young gifted children. Leads parents through infancy and early childhood, discussing topics such as language development, creativity, and how to choose schools. Provides a developmental checklist. New York: Facts On File.

Prepared by Wendy C. Roedell, Director, Early Childhood Education and Assistance Program, Educational Service District 121, Seattle, Washington, and senior author of *Gifted Young Children.*

Note. Reprinted by permission of the publisher from Roedell, W. (1989). Early development of gifted children. In J. VanTassel-Baska & P. Olszewski-Kubilius (Eds.), *Patterns of Influence on gifted learners, The home, the self, and the school* (pp. 13–28). (New York: Teachers College Press. © 1989 by Teachers College, Columbia University. All rights reserved.)

This publication was prepared with funding from the U.S. Department of Education, Office of Educational Research and Improvement, under contract no. RI88062007. The opinions expressed in this report do not necessarily reflect the positions or policies of OERI or the Department of Education.

ERIC
Clearinghouse on Handicapped and Gifted Children
THE COUNCIL FOR EXCEPTIONAL CHILDREN
1920 Association Drive • Reston, VA 22091-1589
FAX (703) 264-9494

ERIC Digest

DIGEST #E488 **EC–90**

HELPING GIFTED STUDENTS WITH STRESS MANAGEMENT

What Is stress?

Stress is the body's general response to any intense physical, emotional, or mental demand placed on it by oneself or others. While racing to meet a deadline, dealing with a difficult person, or earning a poor grade are all stressful, so are the excitement of playing a lively game of tennis, falling in love, and being selected to join a special program for gifted students.

How can a youngster experience stress when nothing bad is happening?

Anything can be a stressor if it lasts long enough, happens often enough, is strong enough, or is perceived as stress. Working diligently on a project, performing many simple but boring tasks, or earning an "A" grade when one expected an "A+" may all be stressful.

Is a gifted student more likely to feel stress than others?

Many gifted youngsters have a heightened sensitivity to their surroundings, to events, to ideas, and to expectations. Some experience their own high expectations for achievement as a relentless pressure to excel. Constant striving to live up to self-expectations—or those of others—to be first, best, or both can be very stressful. With every new course, new teacher, or new school questions arise about achievement and performance, since every new situation carries with it the frightening risk of being mediocre. Striving becomes even more stressful when unrealistic or unclear expectations are imposed by adults or peers. The pressure to excel, accompanied by other concerns such as feeling different, self-doubt (the "imposter" syndrome), and the need to prove their giftedness can drain the energy of gifted students and result in additional stress.

Stress occurs even when everything is going well. Youngsters get tired from their constant efforts and may secretly fear that next time they will not be as successful.

What are some other stresses on a gifted student?

Many gifted students accept responsibility for a variety of activities such as a demanding courseload; leadership in school activities, clubs, or sports; and part-time jobs. Even if it were humanly possible, doing everything well would be physically and emotionally stressful.

Vacations may be stressful if students are comfortable only when achieving and succeeding. Taking time off may make them feel nervous and lacking control.

Gifted students need intellectual challenge. Boring, monotonous busy-work is very stressful for individuals who prefer thinking and reasoning activities. Boredom may result in anger, resentment, or, in some cases, setting personal goals for achievement and success that significantly exceed those of parents or school.

Some gifted students value independence and leadership, yet the separation they feel from their peers results in loneliness and fewer opportunities to relieve stress. Finding a peer group can be difficult, particularly for adolescents. Some experience a conflict between belonging to a group and using their extraordinary abilities.

Gifted students are complex thinkers, persuasively able to argue both sides of any question. This ability, however, may complicate decisions. Students may lack information about and experience with resources, processes, outcomes, or priorities that help tip an argument toward a clear solution. Furthermore, not every problem has one obviously correct answer. Compromise and accommodation are realities in the adult world, but they are not easily perceived from a young person's viewpoint. Thus, decision making may be a very stressful process.

How can stress hurt a gifted student's self-esteem?

During the early years, school may be easy, with minimum effort required for success. If students are not challenged, they conclude that "giftedness" means instant learning, comprehension, and mastery, and that outstanding achievement follows naturally. As years pass, however, schoolwork becomes more difficult. Some students discover that they must work harder to earn top grades and that they have not developed productive study habits. Many suspect they are no longer gifted, and their sense of self-worth is undermined.

Stress can hamper the very abilities that make these students gifted. Stress clouds thinking, reduces concentration, and impairs decision making. It leads to forgetfulness and a loss of ability to focus keenly on a task, and it makes students overly sensitive to criticism. Under these conditions, they perform less well and are more upset by their failures.

Gifted students have so much potential. How can that be stressful?

Abundant gifts and the potential for success in many different subjects and careers may increase opportunities and lead to complex choices. Limiting options is a confusing and upsetting process because it means saying "no" to some attractive alternatives. A person cannot prepare to become an architect *and* a financial planner, or an advertising executive *and* a scientist. At some point, the education needed for one career splits from that needed for the other. To set career goals, students must know themselves well as individuals. They must understand their own personalities, values, and goals and use self-awareness as a guide for making decisions. These activities are all stressful.

How can gifted students cope with stress?

Some ways of coping with stress are healthy; others are not. Some healthy ways of handling stress include the following:

Change the source of the stress. Do something else for a while. Put down those study notes and jog for an hour.

Confront the source of the stress. If it is a person, persuade him or her to remove the stress. Ask the teacher for an extension on a project. Sit down with the person driving you crazy and talk about ways you might better work together.

Talk about the source of stress. Rid yourself of frustration. Find a good listener and complain. Talk through possible solutions.

Shift your perspective. Tell yourself that each new situation or problem is a new challenge, and that there is something to be learned from every experience. Try to see the humorous side of the situation.

Learn skills and attitudes that make tasks easier and more successful. Practice effective organization and time-management skills. For example, large projects are easier and less overwhelming when broken down into manageable steps. Learn to type and revise assignments on a word processor. Learn about yourself and your priorities, and use the information to make decisions. Learn how to say "no" gracefully when someone offers you another attractive (or unpleasant) task about which you have a choice. Tell yourself that this unpleasantness will be over soon and that the whole process will bring you closer to reaching your goal. Mark the days that are left on the calendar, and enjoy crossing out each one as you near the finish.

Take time out for enjoyable activities. Everyone needs a support system. Find friends, teachers, or relatives with whom you have fun. Spend time with these people when you can be yourself and set aside the pressures of school, work, or difficult relationships. As a reward for your efforts, give yourself work breaks. Listen to your favorite music, shoot baskets, or participate in some other brief activity that is mentally restful or fun.

Ignore the source of the stress. Practice a little healthy procrastination and put a pleasant activity ahead of the stressful one. This, is, of course, only a short-term solution.

Get regular physical exercise and practice sound nutrition. Physical activity not only provides time out, but also changes your body chemistry as you burn off muscle tension built up from accommodating stress. Exercise also increases resistance to illness. Nutritious food and regular meals help regulate your body chemistry and keep you functioning at your sharpest. Eating healthy and attractively prepared food can be an enjoyable activity on its own.

The following are some *unhealthy* ways students cope with stress:

Escaping through alcohol, drugs, frequent illness, sleep, overeating, or starving themselves. These strategies suggest a permanent withdrawal or avoidance rather than a time out.

Selecting strategies to avoid failure. Gifted students closely link their identities to excellence and achievement. Failure, or even the perception of failure, seriously threatens their self-esteem. By not trying, or by selecting impossible goals, students can escape having their giftedness questioned. Only their lack of effort will be questioned.

Aiming too low. This reduces stress by eliminating intense pressure or possible feelings of failure. Dogged procrastination in starting projects, selecting less competitive colleges or less rigorous courses, or dropping out of school rather than bringing home poor grades allows students to avoid feelings of failure in the short run. Sadly, this sets the stage for long-term disappointment caused by a destructive coping style.

Overscheduling daily life with schoolwork and extracurricular activities, selecting impossibly demanding courseloads, or fussing endlessly over assignments in vain attempts to make them perfect. With this strategy, it is possible to succeed only through superhuman effort; thus the student can save face by setting goals too high for anyone to achieve.

How can I tell whether or not a gifted student is experiencing burnout?

Not all gifted youngsters are stressed by the same events. Individual responses to stress also differ: Younger students do not tend to respond to stress in the same way that teenagers do. Since each student is unique, parents and teachers will have to watch carefully to know whether a child is stressed to the point of constructive excitement or to the point of damaging overload.

The following checklist includes many, but not all, symptoms of burnout:

_____ Student is no longer happy or pleasantly excited about school activities, but, rather, is negative or cynical toward work, teachers, classmates, parents, and the whole school- and achievement-centered experience.

_____ Student approaches most school assignments with resignation or resentment.

_____ Student exhibits boredom.

_____ Student suffers from sleeplessness, problems in falling asleep, or periodic waking.

_____ Student overreacts to normal concerns or events.

_____ Student experiences fatigue, extreme tiredness, low energy level.

_____ Student exhibits unhappiness with self and accomplishments.

_____ Student has nervous habits such as eye blinking, head shaking, or stuttering.

_____ Student has physical ailments such as weekly or daily stomachaches or headaches.

_____ Student is frequently ill.

_____ Student exhibits dependency through increased clinging or needing and demanding constant support and reassurance.

_____ Student engages in attention-getting behaviors such as aggressive or acting-out behaviors.

_____ Student has a sense of being trapped or a feeling or being out of control.

_____ Student is unable to make decisions.

_____ Student has lost perspective and sense of humor.

_____ Student experiences increased feelings of physical, emotional, and mental exhaustion in work and activities that used to give pleasure.

How can parents, teachers, and counselors reduce stress on gifted students?

Help each gifted student understand and cope with his or her intellectual, social, and emotional needs during each stage of development. In some ways, the needs of gifted students mirror those of more typical children. Giftedness, however, adds a special dimension to self-understanding and self-acceptance. If gifted youngsters are to develop into self-fulfilled adults, the following differential needs must be addressed: (a) the need to understand the ways in which they are different from others and the ways in which they are the same; (b) the need to accept their abilities, talents, and limitations; (c) the need to develop social skills; (d) the need to feel understood and accepted by others; and (e) the need to develop an understanding of the distinction between "pursuit of excellence" and "pursuit of perfection." VanTassel-Baska (1989) and Delisle (1988) have offered useful suggestions on how to meet these needs.

Help each gifted student develop a realistic and accurate self-concept. Giftedness does not mean instant mastery or winning awards. Parents and teachers need to set realistic expectations for efforts and achievements and help the student choose appropriate goals. It is important to recognize and appreciate efforts and improvement.

On the other hand, giftedness permits people to learn and use information in unusual ways. Given parental support and encouragement, personal motivation, and opportunities to learn and apply their knowledge, gifted students may enjoy the process of creating new ideas, especially if they believe that it is all right to think differently than age-mates.

Help each gifted student be a whole person. Gifted youngsters are children first and gifted second. While their learning styles may be special, they are individuals with emotions, likes and dislikes, and unique personalities. They will not wake up one day and be "not gifted." They should not feel responsible for solving world problems, nor does the world owe them tribute. It is up to each student to make life meaningful. Understanding these realistic limits to the bounty of giftedness can reduce stress on confused students.

Gifted students have strong emotions that give personal meaning to each experience. Emotions should be recognized, understood, and used as a valid basis for appropriate behaviors.

Show patience. Let students select and strive toward their own goals. Do not compare them or their achievements to others.

Some gifted students are intensely curious and may have less tolerance for ambiguity and unpredictability than their age-mates. Help them develop patience with themselves.

Show acceptance and encouragement. Encourage students to work purposefully, thoughtfully, and thoroughly and do the best they can. It is not necessary to excel in every situation. Help them develop priorities to decide which tasks require the best efforts and which require simply "good enough."

Accept and reward efforts and the process of working on tasks. Sincere effort is valuable in itself and deserves reinforcement. The means may be more deserving of merit than the ends. Efforts are within the gifted students' control; the outcomes (high grades, prizes, honors, etc.) are not. Show love and acceptance, regardless of the outcome. These youngsters need to be cherished as individuals, not simply for their accomplishments. They must know that they can go home and be loved—and continue to love themselves—even when they do not finish first or best.

Encourage flexibility and appropriate behavior. Curiosity is frequently mentioned as a characteristic of gifted learners. Many individuals agree that gifted students seem to question rules automatically, asking "How come?" Concerned adults can reduce stress on gifted students by helping them distinguish between hard-and-fast rules that should be followed and those that can safely be questioned or altered and helping them understand why rules sometimes change from time to time.

Many people recognize that new ideas come from reshaping and discarding old notions of right and wrong and want students to be inquiring, creative, and resourceful thinkers. But society, schools, teachers, and academic subjects have rules. In our society, flagrant rule breakers may be penalized and shut out of opportunities for further growth and enrichment. Our students will become better thinkers by learning that rules are man-made guides to behavior, not perfect or divine, but they are to be learned, understood, and followed appropriately in certain situations. For instance, not every student will like every teacher, but showing respect is appropriate behavior even if the student privately thinks otherwise. Wise adults can model problem-solving methods that result in workable solutions and help gifted students learn when and how to use their novel perceptions, creativity, and independent thoughts appropriately and effectively.

Understanding and following rules does not mean conforming to every situation. There are some occasions when gifted students should not be expected to accommodate others. For example, a severe mismatch between a youngster's ability level and a school program may be very stressful. Altering the student's curriculum may solve the problem.

Some parents unintentionally send mixed messages regarding behavior. When children are rude or uncooperative and offend teachers, other adults, or peers, their parents behave as though giftedness somehow excuses such behavior and the offending actions highlight their child's specialness. Some even seem pleased. These parents do their children a great disservice by denying them the opportunity to learn empathy, teamwork, and tolerance for individual differences.

Let students live their own lives. Caring adults support, encourage, and celebrate students' efforts and successes, but they stand back a bit from these efforts and achievements. They let students select and master activities for personal enjoyment. Unfortunately, some students wonder whether their efforts and gains are for personal satisfaction or to please overly involved parents, teachers, or others. When these students wish to give up an activity that no longer brings pleasure or interest, they fear they will disappoint others, and they are likely to feel trapped.

Be available for guidance and advice. Some gifted students appear to be more mature than their chronological age indicates. They have advanced verbal skills and can talk a good line. Nevertheless, they are still children and need realistic, clearly stated guidelines about limits, values, and proper behavior. These young people may not have enough information or experience to make wise and effective decisions. They may not understand decision-making processes, and they need wise adults to listen and guide as they talk through the problem, the alternatives, and the pro's and con's and try out choices. Knowing that they can be independent and still talk through their thoughts with others without losing face reduces stress for these students.

Gifted students need to hear adults openly state some of their perspectives to understand expectations and acceptable limits. While these students are very perceptive, they cannot read minds.

Gifted students may know more facts about their interest area than do their parents and other adults. However, they have not lived longer; they need loving concern and guidance.

References

Delisle, J. R. (1988). Stress and the gifted child. *Understanding Our Gifted, 1* (1), 1, 12, 15–16.

VanTassel-Baska, J. (1989). Counseling the gifted. In J. Feldhusen, J. VanTassel-Baska, & K. Seeley, *Excellence in educating the gifted* (pp. 299–314). Denver, CO: Love Publishing.

Resources

Ellenhorn, J. H. (1988). Rules, roles, and responsibilities. *Understanding Our Gifted, 1*(2), 1,12, 13.

Higham, S., & Buescher, T. M. (1987). What young gifted adolescents understand about "feeling different." In T. M. Buescher (Ed.), *Understanding gifted and talented adolescents: A resource guide for counselors, educators, and parents* (pp. 26–30). Evanston, IL: Center for Talent Development, Northwestern University.

Kaplan, L. S. (1983). Mistakes gifted young people too often make. *Roeper Review, 6* (2), 73–77.

Pelsma, D. M. (1988). Children coping with stress: A workshop for parents. *The School Counselor, 36* (2), 153–157.

Pines, A. M., & Aronson, E., with Kafry, D. (1981). *Burnout: From tedium to personal growth.* New York: The Free Press.

Selye, H. (1978). *The stress of life* (rev. ed). New York: McGraw-Hill.

VanTassel-Baska, J. (Ed.) (1990). *A practical guide to counseling the gifted in a school setting* (2nd ed.). Reston, VA: The Council for Exceptional Children/ERIC Clearinghouse on Handicapped and Gifted Children.

Webb, J. T., Meckstroth, E.A., & Tolan, S. S. (1982). *Guiding the gifted child.* Columbus: Ohio Psychology Publishing.

Prepared by Leslie S. Kaplan, Director of Guidance, York County Public Schools, Virginia, and author of *Coping With Peer Pressure* and *Coping With Stepfamilies.*

This publication was prepared with funding from the U.S. Department of Education, Office of Educational Research and Improvement, under contract no. RI88062007. The opinions expressed in this report do not necessarily reflect the positions or policies of OERI or the Department of Education.

Clearinghouse on Handicapped and Gifted Children
THE COUNCIL FOR EXCEPTIONAL CHILDREN
1920 Association Drive • Reston, VA 22091-1589
FAX (703) 264-9494

ERIC Digest

DIGEST #E489
EDO-EC-90-7

HELPING ADOLESCENTS ADJUST TO GIFTEDNESS

Young gifted people between the ages of 11 and 15 frequently report a range of problems as a result of their abundant gifts: perfectionism, competitiveness, unrealistic appraisal of their gifts, rejection from peers, confusion due to mixed messages about their talents, and parental and social pressures to achieve, as well as problems with unchallenging school programs or increased expectations. Some encounter difficulties in finding and choosing friends, a course of study, and, eventually, a career. The developmental issues that all adolescents encounter exist also for gifted students, yet they are further complicated by the special needs and characteristics of being gifted. Once counselors and parents are aware of these obstacles, they seem better able to understand and support gifted adolescents. Caring adults can assist these young people to "own" and develop their talents by understanding and responding to adjustment challenges and coping strategies.

Challenges to Adjustment

Several dynamics of giftedness continually interfere with adjustment gains during adolescence. Buescher (1986) has found that, during the early years of adolescence, gifted young people encounter several potent obstacles, singly or in combination.

Ownership. Talented adolescents simultaneously "own" and yet question the validity and reality of the abilities they possess. Some researchers (Olszewski, Kulieke, & Willis, 1987) have identified patterns of disbelief, doubt, and lack of self-esteem among older students and adults: the so-called "impostor syndrome" described by many talented individuals. While talents have been recognized in many cases at an early age, doubts about the accuracy of identification and the objectivity of parents or favorite teachers linger (Delisle & Galbraith, 1987; Galbraith, 1983). The power of peer pressure toward conformity, coupled with any adolescent's wavering sense of being predictable or intact, can lead to the denial of even the most outstanding ability. The conflict that ensues, whether mild or acute, needs to be resolved by gaining a more mature "ownership" and responsibility for the identified talent.

A second basic pressure often experienced by gifted students is that, since they have been given gifts in abundance, they feel they must give of themselves in abundance. Often it is subtly implied that their abilities belong to parents, teachers, and society.

Dissonance. By their own admission, talented adolescents often feel like perfectionists. They have learned to set their standards high, to expect to do more and be more than their abilities might allow. Childhood desires to do demanding tasks *perfectly* become compounded during adolescence. It is not uncommon for talented adolescents to experience real dissonance between what is actually done and how well they *expected* it to be accomplished. Often the dissonance perceived by young people is far greater than most parents or teachers realize.

Taking Risks. While risk taking has been used to characterize younger gifted and talented children, it ironically decreases with age, so that the bright adolescent is much less likely to take chances than others. Why the shift in risk-taking behaviors? Gifted adolescents appear to be more aware of the repercussions of certain activities, whether these are positive or negative. They have learned to measure the decided advantages and disadvantages of numerous opportunities and to weigh alternatives. Yet their feigned agility at this too often leads them to reject even those acceptable activities that carry some risk (e.g., advanced placement courses, stiff competitions, public presentations), for which high success is less predictable and lower standards of performance less acceptable in their eyes. One other possible cause for less risk taking could be the need to maintain control—to remain in spheres of influence where challenging relationships, demanding coursework and teachers, or intense competition cannot enter without absolute personal control.

Competing Expectations. Adolescents are vulnerable to criticism, suggestions, and emotional appeals from others. Parents, friends, siblings, and teachers are all eager to add their own expectations and observations to even the brightest students' intentions and goals. Often, others' expectations for talented young people compete with their own dreams and plans. Delisle (1985), in particular, has pointed out that the "pull" of an adolescent's own expectations must swim against the strong current posed by the "push" of others' desires and demands. The dilemma is complicated by the numerous options within the reach of a highly talented student: The greater the talent, the greater the expectations and outside interference.

Gifted adolescents consistently report dramatic episodes of being pushed to the point of doubt and despair by insensitive teachers, peers, and even parents. Teachers in secondary schools, in particular, have tried to disprove the talents of individual students, saying, in effect, "Prove to me you are as gifted as you think you are." Coping with the vagaries of adolescence while also proving oneself again and again in the classroom or peer group significantly drains energy allocated for the normal tasks of adjustment and leads to frequent frustration and isolation.

Impatience. Like most other adolescents, gifted students can be impatient in many ways: eager to find solutions for difficult questions, anxious to develop satisfying friendships, and prone to selecting difficult but immediate alternatives for complex decisions. The predisposition for impulsive decision making, coupled with exceptional talent, can make young adolescents particularly intolerant of ambiguous, unresolved situations. Their impatience with a lack of clear-cut answers, options, or decisions drives them to seek answers where none readily exist, relying on an informing, though immature, sense of wisdom. The anger and disappointment when hasty resolutions fail can be difficult to surmount, particularly when less capable peers gloat about these failures.

Premature Identity. It appears that the weight of competing expectations, low tolerance for ambiguity, and the pressure of multiple potentials each feed very early attempts to achieve an adultlike identity, a stage normally achieved after the age of 21. This can create a serious problem for talented adolescents. They seem to reach out prematurely for career choices that will short-cut the normal process of identity crisis and resolution.

Coping Strategies

How can talented adolescents cope with the myriad obstacles to developing their talents? A study of young adolescents who participated in a talent search program Buescher & Higham (1985) suggested various strategies. Table 1 depicts the strategies suggested by the adolescents, arranged according to their assessment of acceptablity for use.

The strategies were influenced by such factors as age, sex, and participation in programs for gifted students. For example, over the course of 4 years (ages 11 to 15), "using one's talent to help others" moved from second place to first, by way of third. "Achieving in school in areas outside academics" appeared to rise in popularity until the age of 14 but then droped to third place. Students participating in special programs for the gifted were less likely, as they grew older, to mask their true abilities. Other studies have indicated that gifted females appear to be somewhat vulnerable to the pull of cultural expectations that drive them toward seeking peer acceptance rather than leadership and the full development of their abilities (Olszewski-Kubilius & Kulieke, 1989).

Table 1. Coping Strategies Suggested by Adolescents

Strategy	*Weighted Ranking*
Accept and use abilities to help peers do better in classes.	10
Make friends with other students with exceptional talents.	9
Select programs and classes designed for gifted/talented students.	8
Build more relationships with adults.	7
Achieve in areas at school outside academics.	6
Develop/excel in talent areas outside school setting.	5
Be more active in community groups where age is no object.	4
Avoid programs designed for gifted/talented students.	3
Adjust language and behavior to disguise true abilities from your peers.	2
Act like a "brain" so peers leave you alone.	1
Pretend not to know as much as you do.	0

Note: 10 = most acceptable to students; 0 = least acceptable.

References

Buescher, T. M. (1985). A framework for understanding the social and emotional development of gifted and talented adolescents. *Roeper Review, 8*(1), 10–15.

Buescher, T. M. (1986, March). *Adolescents' responses to their own recognized talent: Issues affecting counseling and adjustment.* Paper presented at the 63rd annual meeting of the American Orthopsychiatric Association, Chicago.

Buescher, T., & Higham, S. (1985). *Young adolescent survey: Coping skills among the gifted/talented.* Unpublished instrument. Evanston, IL: Center for Talent Development, Northwestern University.

Delisle, J. (1985). Counseling gifted persons: A lifelong concern. *Roeper Review, 8* (1), 4–5.

Delisle, J., & Galbraith, J. (1987). *The gifted kids survival guide, II.* Minneapolis: Free Spirit.

Galbraith, J. (1983). *The gifted kids survival guide, ages 11–18.* Minneapolis: Free Spirit.

Olszewski, P., Kulieke, M., & Willis, G. (1987). Changes in the self-concept of gifted students who participate in rigorous academic programs. *Journal for the Education of the Gifted, 10*(4), 287-304.

Olszewski-Kubilius, P., & Kulieke, M. (1989). Personality dimensions of gifted adolescents. In J. VanTassel-Baska & P. Olszewski-Kubilius (Eds.), *Patterns of influence on gifted learners: The home, the self, and the school* (pp. 125–145). New York: Teachers College Press.

Resources

Buescher, T., Olszewski, P., & Higham, S. (1987, April). *Influences on strategies gifted adolescents use to cope with their own recognized talent.* Paper presented at the 1987 biennial meeting of the Society for Research in Child Development, Baltimore.

Csikszentmihalyi, M., & Larson, R. (1984). *Being adolescent: Conflict and growth in the teenage years.* New York: Basic Books.

Erikson, E. (1968). *Identity, youth, and crisis.* New York: Norton.

Higham, S., & Buescher, T. (1987). What young gifted adolescents understand about feeling different. In T. Buescher (Ed.), *Understanding gifted and talented adolescents* (pp. 26–30). Evanston, IL: Center for Talent Development, Northwestern University.

Prepared by Thomas M. Buescher, child and adolescent therapist in Camden, ME, editor of *Understanding Gifted and Talented Adolescents*, and Research Scholar, Center for Talent Development, Northwestern University; Sharon Higham, formerly Associate Director of Programs, Center for Talented Youth (CTY), Johns Hopkins University, and currently a Fulbright Scholar researching programs for gifted students in Poland.

The material in this digest was adapted by permission of the publisher from Buescher, T. (1989). A developmental study of adjustment among gifted adolescents. In J. VanTassel-Baska & P. Olszewski-Kubilius (Eds.), *Patterns of influence on gifted learners: The home, the self, and the school* (pp. 102–124). New York: Teachers College Press. © 1989 by Teachers College, Columbia University. All rights reserved.

This publication was prepared with funding from the U.S. Department of Education, Office of Educational Research and Improvement, under contract no. RI88062007. The opinions expressed in this report do not necessarily reflect the positions or policies of OERI or the Department of Education.

ERIC
Clearinghouse on Handicapped and Gifted Children
THE COUNCIL FOR EXCEPTIONAL CHILDREN
1920 Association Drive • Reston, VA 22091-1589
FAX (703) 264-9494

ERIC
Digest

DIGEST #E490
EDO–EC–90–8

COLLEGE PLANNING FOR GIFTED AND TALENTED YOUTH

There are more than 3,000 colleges and universities in the United States. Choosing among them is a complex task. Recruiting procedures and a wide variety of publications such as college viewbooks offer idyllic scenes of campus life, but do little to clarify student decision making. The increasing number and variety of books on how to get accepted by the college of your choice adds to the anxiety and expectations. Unless the match between institutions and students is truly a good one, both are likely to be disappointed.

Gifted and talented (GT) students often have problems beyond those of most other students who consider college and career choices. A systematic, collaborative approach is needed whereby students learn that college planning is part of life career development; it need not be a finite event that begins and ends mysteriously or arbitrarily.

Learning About Oneself: A 6-Year Process

A coherent, programmatic approach to college planning provides opportunities for students to obtain information from counselors, other adults, and peers who understand their needs and who will listen to them, interpret and clarify their experiences, and discuss their concerns about changing self-concepts. Programs should include students who are identified as gifted (generally through IQ scores) but who may not be achieving academically. Students can learn about themselves, their community, and career options in a wide variety of ways. *College Planning for Gifted Students* (Berger, 1989) provides detailed information.

Seventh and Eighth Grades. Guidance activities emphasize self-awareness, time management, work/study skills, and an introduction to career awareness. Students develop a 4- to 6-year academic plan and decision-making skills. Participation in regional talent searches is encouraged, and students are provided with information on the Scholastic Aptitude Test (SAT) and/or the American College Test (ACT), the screening instruments employed by talent searches. Planning for advanced courses often begins as early as the eighth grade, especially in the case of sequential courses such as mathematics, languages, and sciences. Many students will not be ready or able to begin a sequence. In such cases, summer programs, sponsored by regional talent searches or by-mail courses provided by some regional talent search programs may be a viable option.

Ninth and Tenth Grades. Guidance activities continue to help students clarify intellectual and social/emotional experiences, establish a sense of identity and direction, and set short- and long-term goals. Students are encouraged to identify and pursue interests. By 10th grade, they become aware of how their academic subjects, values, interests, and goals relate to careers. They also begin to learn that some interests and talents develop into artistic or scientific convictions while others develop into leisure activities.

Eleventh and Twelfth Grades. Guidance activities include arranging for mentor relationships and internships. Through group workshops, students learn how colleges make selections, who is involved in the admissions process, how students are evaluated, and what they can offer that a college requires and desires. They learn about the application process and how to present themselves so that the institution will recognize them as a good match.

Parents can support an effective guidance program by participating in school career centers and providing students with opportunities for enrichment.

Learning About Colleges

Learning about colleges is a two-step process. Step 1 involves collecting general information by reading, talking with people (asking questions), and visiting colleges. By the end of 11th grade, the student should be able to develop a list of 10 to 20 colleges based on personal criteria. Step 2 involves analyzing and evaluating information. Students should be attuned to their needs and be creative researchers. By the middle of 12th grade, the student should be able to narrow his or her list to five or six colleges, taking into consideration (a) personal values, interests, and needs; (b) the variety and range of available college opportunities; (c) realistic constraints such as cost and distance; and (d) the method used by the colleges to select a freshman class (selectivity factor). The final list should include a safety school (one that will definitely accept the student), a long shot (admissions criteria are slightly beyond the student's credentials), and three or four colleges having admissions criteria that match the student's credentials.

Some gifted students are drawn to the most selective colleges and universities, schools that receive more than 10 applications for every freshman vacancy. A student who aspires to a highly selective college can expect a highly competitive application review. Students should understand that the way they address the application process may be the critical factor determining acceptance or rejection.

The application requires the following two kinds of information:

1. Objective information including biographical data, information on academic performance, standardized test scores such as SATs or ACTs, Achievement Test scores, advanced placement (AP) examination grades, and additional numerical information.
2. Subjective information including extracurricular activities, recommendations, essay and/or personal statement, and a personal interview.

What Colleges Look For

- *Academic performance*: Grade point average and class rank.
- *Academic rigor*: Evidence of superior ability in the form of honors, GT, or AP courses. (Some colleges ignore honors or GT classes because they are of unknown quality.)
    - *Depth of study in areas such as foreign languages and mathematics.*
    - *Quality*: Four or five academic subjects each year (English, mathematics, science, history, language).
    - *Balance*: Evidence that the student took a broad curriculum (mathematics and science, history, and English courses).
    - *Trends*: Evidence as to whether the student's grades are gradually improving each year. Recent performance is the most important indicator of the student's current level of ability and motivation.
- *Consistency*: The parts of the application should fit together to provide a common theme and make the student "come alive" on paper. Recommendations should support and be consistent with both the academic record and what the student says about himself or herself. A quirk in the transcript (e.g., a low grade in an academic course during 11th or 12th grade) should be accompanied by an explanation. High SAT scores combined with a relatively low GPA provide an inconsistent picture of an applicant (e.g., high ability/low motiva tion). The student should address these situations in an essay or personal statement.
- *Standardized tests*: PSATs, SATs, ACTs, and Achievement Tests are the only objective way a college can compare students from all parts of the country. Some large universities screen a vast number of applicants by combining each student's SAT or ACT score with GPA and class rank. Students who are not good test takers should avoid such colleges or make sure that their scores are not so low that they can be eliminated from consideration. Selective schools may emphasize achievement test scores. If students wait until senior year, only three tests may be taken.
- *Extracurricular activities and other supporting material*: When highly selective colleges decide between two students who are academically equal, the creative presentation of extracurricular activities, the quality of recommendations, the essay or personal statement, the interview, and other supporting material make a difference.
- *Community service*: Admissions officers know that an altruistic student, one who contributes to community life without regard for compensation, is likely to contribute to college life, be academically successful, and form a long-term attachment to the college or university.
- *Recommendations*: Counselor and teacher recommendations should present a positive picture of the applicant, distinguish between the applicant and others who are equally qualified, and be consistent with the rest of the student's application.
- *The application essay:* The essay can reassure the admissions committee that the student is capable of college-level work. Many gifted students have a difficult time with open-ended questions. Some create beautiful prose that, on the surface, is convincing. A closer look may reveal that none of the ideas are documented, grounded in fact, or based on any genuine information.

A counselor's role as student advocate and resource does not end when letters of acceptance arrive. Some students have difficulty breaking away. These students spend years in academic and social activities that nurture close friendships, and they sense that their lives are about to change. Although this is true for adolescents in general, gifted students may especially need guidance activities that ease the transition from high school to college.

College and career planning may be particularly difficult for some gifted students. However, it can be a growth-promoting experience for all participants when the ultimate goal—student decisions based on realistic criteria that result in a satisfying life—is kept at the forefront of all decision-making activity.

Reference

Berger, S. (1989). *College planning for gifted students*. Reston, VA: The Council for Exceptional Children.

Resources

Buescher, T. (1987). Counseling gifted adolescents: A curriculum model for students, parents, and professionals. *Gifted Child Quarterly, 31*(2), 90–93.

VanTassel-Baska, J. (Ed.). (1990). *A practical guide to counseling the gifted in a school setting* (2nd ed.). Reston, VA: The Council for Exceptional Children.

Prepared by Sandra L. Berger. The material in this digest was derived from *College Planning for Gifted Students* (1989) by S. Berger, published by The Council for Exceptional Children and the ERIC Clearinghouse on Handicapped and Gifted Children.

This publication was prepared with funding from the U.S. Department of Education, Office of Educational Research and Improvement, under contract no. RI88062007. The opinions expressed in this report do not necessarily reflect the positions or policies of OERI or the Department of Education.

ERIC
Clearinghouse on Handicapped and Gifted Children
THE COUNCIL FOR EXCEPTIONAL CHILDREN
1920 Association Drive • Reston, VA 22091-1589
FAX (703) 264-9494

ERIC
Digest

DIGEST #E491
EDO–EC–90–9

DISCOVERING INTERESTS AND TALENTS THROUGH SUMMER EXPERIENCES

What are the possibilities?

Work side by side with a microbiologist 8 hours a day. Collaborate with playwrights and directors to produce a new play. Learn to fly a small plane. Be immersed in the world of music. Be a writer 12 hours a day, creating short stories, poems, essays, or a weekly newspaper. Study the ecosystems of coral reefs on daily dives in the Caribbean. Build a wooden sea kayak and paddle it along the Maine coast for 3 weeks. Learn to speak Arabic, Chinese, or Portuguese.

What needs do summer programs meet?

The majority of summer experiences are designed to provide a pressure-free, noncompetitive environment in which young people can explore their areas of particular interest in depth. They have an opportunity to work with adult role models who are enthusiastic about their field and give individual support to each participant. Gifted students find it validating to be among peers who share their own excitement and skill level. They form bonds based on common interests with youth from around the country and the world. Many programs, especially outdoor adventures, help young people develop teamwork skills. For children whose abilities exceed those of their age mates, ungraded programs based on interest and skill rather than age provide a supportive and stimulating environment.

Summer is a perfect time to experiment—a time for young people to test out their interest level in a topic. By immersing themselves full time for a month or two in painting, architecture, marine biology, or laboratory research, they gain a realistic introduction to the content, demands, and lifestyle of a career area they may be considering. Such an experience can be helpful in deciding whether they want to pursue a topic as a hobby or a main focus. Summer is also a time to try out an entirely new area that may not be available during the school year.

If students choose a program on a college campus, they also have a chance to adjust to college courses, scheduling out-of-class time, and dormitory life before the pressures of the freshman year begin. These programs also provide an excellent opportunity for students to test out their assumptions about campus sizes and locations: They can experience day-to-day life on a small rural campus or in a large urban location before committing themselves to full-time enrollment.

Who should make the selection?

Young people who are involved in every step of choosing a summer program have a more satisfying experience than youngsters who are placed in a program of their parents' or counselor's choice. Staff members and other participants can name the youngsters who show a lack of commitment to the program because it was someone else's idea.

The selection process itself can also provide a sense of accomplishment and closure for gifted students. In addition, researching and evaluating the possibilities and filling out the applications, some of which may require personal statements of interest, are excellent first steps toward the college selection and application process. Questions young people ask themselves in looking for summer programs are similar to questions they will ask in finding an appropriate college focus and atmosphere (Berger, 1989).

What does the selection process involve?

It is important to find a program that meets the total needs of a child—social and emotional as well as intellectual. Selecting a program is a two-step process. First young people need to think about what they want—about what is important to them as individuals. This involves thinking about the subject area or areas, the type of activities they enjoy, and the atmosphere in which they are most comfortable and most successful.

The second step involves learning as much as possible about a variety of programs. Young people can use the directories listed at the end of this digest and/or independent educational counselors to get a starting list of programs. It is useful to request brochures from five or more programs in the same field. Reading and comparing a significant number of brochures on the same topic reveals differences in the programs' emphases and philosophies as well as the activities they offer and the daily schedules.

Once a young person understands what is generally available in a field, it is time to find out specific information about individual programs. Two valuable sources are previous participants and the program director and staff. In talking with several previous participants, a child gains a realistic view of what involvement in the program will be like.

Directors of reputable programs welcome questions by prospective participants. They want the youngsters in their programs to have successful, happy experiences. They know that one of the best ways to ensure success is for youngsters to understand ahead of time just what is involved so they can pick a program that matches their goals.

What variables are important?

Within each subject area, different organizations set up their programs in different ways. For example, some camps and schools have rigid schedules that include a series of activity periods. Other organizations provide a flexible format in which participants may remain in an activity for an extended amount of time. Some academic programs require 2 hours of study every evening while others believe that scheduling one's time is part of the learning process. Neither program is right or wrong; each is suited to the learning patterns and lifestyles of different participants. The following are some of the many other factors that vary from program to program (Ware, 1990):

Length: Programs vary from 1 to 10 weeks. Length affects the skill level that can be reached and the overall cost.

Age Range: Determine the age range of participants and the way they are grouped to know whether a child will be with peers or will be one of the oldest or youngest members. In campus programs will the child study with undergraduates or peers?

Requirements: In some types of programs, especially in academics and music, the requirements for application can provide a clue to what one can expect. For example, a music program that requires a tape or audition may involve more difficult orchestral music than a program that takes anyone who has had 1 year of lessons.

Size: The overall number of participants, as well as the size of activity or study groups, affects the atmosphere of a program and the kinds of activities that are possible.

Individual Attention: Closely related to size is the ratio of leaders or teachers to participants. The lower the ratio, the more individual attention one can expect.

Leadership: There is not one ideal background for a leader or teacher. They include professionals, experienced volunteers, and teachers at all levels: college faculty, public and independent school teachers, and undergraduate teaching assistants. The common qualities that make them appropriate are experience in their field, experience and pleasure in working with young people, and the flexibility and desire to be in a summer program setting.

Depth of Experience: Ask the staff and previous participants for specific examples of the activities and the skill level they developed to judge whether the program is an appropriate match for the goals of the applicant.

Credit or Noncredit Courses: A program's approach to credit is an integral part of its philosophy. Programs that do not grant credit want to encourage students to pursue a topic at length without being concerned about grades. Credit-granting programs view grades as a normal part of an academic experience.

Facilities and Equipment: The quality of the facilities and the amount of equipment impact the level of involvement. One computer for every two participants allows more work time than one computer for five participants. This also applies to laboratory, art, drama, music, and sports equipment.

Schedule: Does the participant want to have every minute scheduled, or does he or she prefer a more relaxed pace that includes unscheduled free time?

Recreation: To what extent are athletics or other recreational activities such as arts or drama offered or required? Some organizations require an hour or two of individual or team sports daily. Others view activities as optional.

Social Activities: Most programs plan informal group activities for participants to get to know one another. A few programs leave this up to the students.

Safety: In all programs safety is of paramount importance. Ask about the training and qualifications of the instructors, the certifications or inspections the program has passed, and the provisions that are made for safety.

Programs Abroad: Travel abroad involves its own set of questions such as whether or not to include a homestay, study, or extensive travel and whether to travel with a group of Americans or be immersed as an individual in day-to-day life in a different country.

What financial assistance is available?

A surprisingly large number of summer programs offer financial aid. Many do what they can to make participation possible for a young person with potential who could not participate otherwise. Because some independent schools, camps, and adventure programs are committed to including participants from a wide range of backgrounds, they have scholarship funds available. College programs may offer scholarships based on need, merit, or a combination of the two. They often have special assistance to attract qualified minority students and women to programs in mathematics, science, and engineering. Some campuses select highly qualified students and waive tuition for coursework, charging only for room and board. The National Science Foundation makes available many grants that colleges use to waive all costs for a small number of students or to reduce fees for a larger group of participants.

Always ask programs not only what assistance is available but what the deadline and special requirements are for application. It is common to have the deadline for financial aid be a month earlier than the general admissions date.

Young people are encouraged to approach community organizations or businesses for scholarships to programs in related fields. For example, the League of Women Voters may support a workshop in leadership and government, or a local conservation organization may give assistance for travel to students doing volunteer work in a national park. There is also value in young people's investing their own money earned at part-time jobs or individual work projects.

References

Berger, S. (1989). *College planning for gifted students*. Reston, VA: The Council for Exceptional Children.

Ware, C. (1990). *Summer options for teenagers*. New York: Simon & Schuster.

Prepared by Cindy Ware, author of *Summer Options for Teenagers* and Director of EXPLOR-options.

This publication was prepared with funding from the U.S. Department of Education, Office of Educational Research and Improvement, under contract no. RI88062007. The opinions expressed in this report do not necessarily reflect the positions or policies of OERI or the Department of Education.

ERIC

Clearinghouse on Handicapped and Gifted Children
THE COUNCIL FOR EXCEPTIONAL CHILDREN
1920 Association Drive • Reston, VA 22091-1589
FAX (703) 264-9494

ERIC Digest

DIGEST #E492 **EC–90**

CAREER PLANNING FOR GIFTED AND TALENTED YOUTH

Although parents and teachers may be concerned about academic planning for gifted and talented young people, they often assume that career planning will take care of itself. Students may have many choices available because of multiple gifts or a particular talent, and a career choice in that area seems inevitable. There is no need for career planning: The student is simply expected to make an occupational decision around the sophomore year of college and then follow through on the steps necessary to attain that goal.

Unfortunately, evidence is mounting that youthful brilliance in one or more areas does not always translate into adult satisfaction and accomplishment in working life. Studies with such diverse groups as National Merit Scholars (Watley, 1969), Presidential Scholars (Kaufmann, 1981), and graduates of gifted education programs (Kerr, 1985) have shown that the path from education to career is not always smooth, and it may be complicated by social-emotional problems and needs of gifted students that differ from those of more typical students.

Recognition of these problems has produced counseling models that address student needs (e.g., Berger, 1989; Buescher, 1987; Silverman, 1989; Van-Tassel-Baska, 1990). Some factors that can contribute to problems with career planning are presented here, along with ways of preventing and intervening with career development problems.

Multipotentiality

Multipotentiality is the ability to select and develop any number of career options because of a wide variety of interests, aptitudes, and abilities (Frederickson & Rothney, 1972). The broad range of opportunities available tends to increase the complexity of decision making and goal setting, and it may actually delay career selection. Multipotentiality is most commonly a concern of students with moderately high IQs (120–140), those who are academically talented, and those who have two or more outstanding but very different abilities such as violin virtuosity and mathematics precocity. Signs that multipotentiality is a concern include the following:

Elementary school: Despite excellent performance in many or all school subjects, students may have difficulty making decisions, particularly when they are asked to make a choice on topics or projects from among many options. Multiple hobbies with only brief periods of enthusiasm and difficulty in finishing up and following through on tasks (even those which are enjoyable) are additional signs for concern.

Junior high: Despite continued excellence in many or all school subjects, difficulty with decision making and follow-through continue. Students may participate in multiple social and recreational activities with no clear preferences, and they may overschedule, leaving few free periods and little time to just think.

Senior high: Decision-making problems generalize to academic and career decisions, resulting in overly packed class schedules and highly diverse participation in school activities. Students often accept leadership of a wide variety of groups in school, religious activities, and community organizations. Adults may notice occasional signs of stress and exhaustion (absences, frequent or chronic illness, periods of depression or anxiety, etc.), or they may see evidence of delay or vacillation about college planning and decision making. Students are able to maintain high grades in most or all courses taken. An important clue to continuing multipotentiality is the student's vocational interest test profiles. These tests often show interests and similarities to an unusually large number of occupations.

College: Multipotential students often have multiple academic majors. Three or more changes of college major are not unusual for an individual who cannot set long-term goals. They continue intense participation in extracurricular activities and have outstanding academic performance but are concerned about selecting a career. They may make hasty, arbitrary, or "going-along-with-the-crowd" career choices. They may encounter the dilemma of opportunities lost in giving up some interests in favor of others.

Adulthood: Some of the implications of multipotentiality can be seen in bright adults who, despite excellent performance in most jobs, hold multiple positions in short time periods and experience a general feeling of lack of fit in most jobs. Some experience feelings of alienation, purposelessness, depression, and apathy despite high performance and excellent evaluations. Some experience periods of unemployment and underemployment, or they fall behind same-age peers in career progress and sometimes social development (marriage, family, community involvement).

Possible intervention strategies for multipotentiality at different educational levels include the following:

Elementary School

- Provide realistic exposure to the world of work through parent sharing and exposure to parents' working places.
- Encourage career fantasies through dress-up and plays.
- Encourage focusing activities such as class projects or achievement of Scout merit badges, which require goal setting and follow-through.
- Use biographies of eminent people as primary career education material.
- As teachers or parents, carefully evaluate skills, talents, and interests in order to help children understand possible areas of greatest interest.

Junior High

- Discuss the meaning and value of work.
- Discuss family and community values pertaining to work.
- Provide for light volunteer work in several areas of interest.
- Provide "shadowing" experiences in which students spend the day with an adult working in an area of greatest interest.
- Discourage overinvolvement in social and recreational activities for the sake of involvement; prioritize and decide on a few extracurricular involvements.

Senior High

- Seek appropriate vocational testing from a guidance professional or psychologist.
- Encourage visits to college and university classes in a few areas of interest.
- Provide for more extensive volunteer work.
- Explore possibilities of paid internships with professionals.
- Insist on a solid curriculum of coursework in order to insure against inadequate preparation for a later career choice.
- Provide value-based guidance, which emphasizes choosing a career that fulfills deeply held values.
- Discourage conformist, stereotyped career choices.
- Expose students to atypical career models.

College Students and Young Adults

- Seek career counseling including assessment of interests, needs, and values.
- Enroll in a career planning class.
- Encourage careful course selection.
- Avoid conformist and stereotyped major choices.
- Seek a mentor.
- Engage in long-term goal setting and planning.

Early Emergence

Early emergers (Marshall, 1981) are children who have extremely focused career interests. A passion for an idea and an early commitment to a career area are common childhood characteristics of eminent individuals in a wide variety of professions (Bloom, 1985; Kerr, 1985); thus, early emergence should not be thought of as a problem of career development, but rather as an opportunity that may be acted upon, neglected, or, unfortunately, sometimes destroyed. Acting upon early emergence means noticing an unusually strong talent or enthusiasm, providing training in skills necessary to exercise that talent, providing resources, and keeping an open mind about the future of the talent or interest. Neglecting early emergence means overlooking the talent or interest or failing to provide education and resources. Destroying the early emerger's passion may not be easy, but belittling the talent or interest ("Who cares about someone who doodles and draws all the time instead of listening?" "What makes you think you can become an anthropologist?") may easily extinguish the flame. Insisting on well-roundedness or disallowing needed training (e.g., refusing to allow a mathematically precocious child to accelerate in math) may diminish the passion. Overly enthusiastic encouragement and pressure may also remove the intrinsic pleasure the child feels in the interest or talent area.

As with multipotentiality, there are signs of early emergence:

Elementary school: Avid interest in one school subject or activity with only general liking for other subjects and activities and extraordinary talent in one area and average or above average performance in others are underlying signs of early emergence. (These students may be mistakenly labeled as underachievers). Students may also try to write more papers than required, choose too many subjects in the area of interest, and mention early career fantasies about success and fame in a particular area of interest.

Junior high: Students continue highly focused interests and may express a strong desire for advanced training in an area of talent and interest. Development of adolescent social interests may be delayed because of a commitment to work in a talent area or because of rejection by others, yet performance in the talent area grows, while performance in other areas diminishes.

Senior high: Students may develop a strong identity in the talent area ("computer whiz," "artist," or "fix-it person," for example). They may express a desire for help with planning a career in an area of interest. A desire to test skill in competition with or in concert with peers in the chosen talent area and continued high performance in the talent area to a degree that causes neglect of other school subjects or social activities are additional signs of a focused interest and passion.

College students and young adults: These young people make an early, but not hasty or arbitrary, choice of career or major. They often show a desire for completion of a training period in order to "get on with work," seek out mentors, continue intense focus, and often neglect social and extracurricular activities.

Adulthood: Adults may continue their intense focus, desire eminence or excellence in the talent area, and possibly forego or delay other aspects of adult development such as marriage, nurturing of a younger generation, social and community involvement, and personal development.

Possible intervention strategies for early emergers at different educational levels include the following:

Elementary School

- Provide for early identification of unusual talent or area of precocity.
- Consult with experts on the nature and nurture of particular gifts or talents.
- Consult with the school on ways of nurturing the talent or gift.
- Encourage fantasies through reading of bibliographies and playing of work roles.
- Provide opportunities to learn about eminent people in the talent area (attend a concert; visit an inventor's workshop; attend a math professor's class).
- Relate necessary basic skills to the area of interest.
- Provide opportunities to socialize with children with similar, intense interests through such activities as music camps, computer camps, and Junior Great Books.
- Strike a careful balance between encouragement and laissez-faire; provide support for the interest along with freedom to change direction. Do not become so invested in the child's talent or interest that you fail to notice that the child has changed interests. (Early emergers most often change to a closely related interest; that is, they switch musical instruments or transfer an interest in mathematics to an interest in theoretical physics).

Junior High

- Provide support and encouragement during the intensive training that often begins at this point.
- Allow for plenty of time alone.
- Seek opportunities for job "shadowing" (following a professional throughout the working day) in area of interest.
- Seek opportunities for light volunteer work in area of interest.
- Avoid pressuring the student into social activities.

Senior High

- Continue support, encouragement, and time alone.
- Seek opportunities for internships and work experiences in the areas of interest (internship on archaeological dig; job as camp counselor at a fine arts camp; coaching younger people in musical or athletic skill).
- Seek career guidance from a guidance counselor *who is familiar with the talent area* or from a professional in that field.
- Make a detailed plan of training and education leading toward the chosen career goal, including financial arrangements.
- Explore higher education or postsecondary training early and thoroughly, with contacts and visits.
- Help the student establish a relationship with a mentor in the area of interest. Early emergers often fare better in a less prestigious institution where they have access to an enthusiastic mentor than in an Ivy League or high status institution where they do not.

College Students and Young Adults

- Help provide support for extended education and training.
- Encourage the development of knowledge of career ladders in the area of interest (auditions, gallery shows, inventor's conventions, etc.).
- Encourage a continuing relationship with a career-counseling or guidance professional for support in decision making and problem solving.

The career development problems discussed here are nearly opposite one another: The multipotential student seems unfocused, delaying, and indecisive, whereas the early emerger is focused, driven, and almost too decisive. Both types carry with them dangers and opportunities. Skillful career education and guidance can help ensure that neither multipotentiality nor early emergence leads to difficulty in career planning and development.

Career Planning for Special Populations

Minority Gifted Students

Minority gifted students have special career planning needs as well as needs related to multipotentiality or early emergence. Minority students from Black, Hispanic, and American Indian backgrounds are less likely to have been selected for gifted education programs and less likely to perform well on standardized achievement tests than their nonminority peers. In addition, they may have lower career aspirations because of lower societal expectations. Nevertheless, the patterns of leadership and out-of-class accomplishments of gifted minority students are very similar to those of nonminority gifted students (Kerr, Colangelo, Maxey, & Christensen, 1989). Minority gifted students are active leaders in other communities. Therefore, career counseling for these students may be most effective when it focuses on raising career aspirations and emphasizes out-of-class accomplishments as indicators of possible career directions. Career planning must also go hand in hand with building a strong ethnic identity if later conflict between ethnic identity and achievement in majority society is to be avoided. Colangelo and LaFrenz (1981) have provided suggestions for how this can be accomplished.

Gifted Girls and Women

Persisting sex role stereotypes and the continued socialization of girls for secondary roles means that, despite great gains in certain fields such as medicine and law, gifted girls are less likely than gifted boys to achieve their full potential. Although gifted girls outperform gifted boys in terms of grades, gifted boys achieve higher scores on college admissions examinations. Compared to gifted boys, gifted girls are underprepared academically, having taken fewer mathematics and science courses and less challenging courses in social studies. As a result, they have fewer options for college majors and career goals (Kerr, 1985). Bright women apparently let go of career aspirations gradually, first through underpreparation and later through decisions that may put the needs of husbands and families before their own. Gifted women fall behind gifted men in salary, status, and promotions throughout their working lives.

In order to ensure that gifted girls have the greatest possible chance to fulfill their potential, career planning should emphasize rigorous academic preparation, particularly in mathematics and science; maintaining high career aspirations; and identifying both internal and external barriers to the achievement of career goals. Many suggestions for career planning for gifted girls are provided in *Smart Girls, Gifted Women* (Kerr, 1985).

References

Berger, S. (1989). *College planning for gifted students.* Reston, VA: The Council for Exceptional Children.

Bloom, B. S. (1985). *Developing talent in young people.* New York: Ballantine.

Buescher, T. (1987). Counseling gifted adolescents: A curriculum model for students, parents, and professionals. *Gifted Child Quarterly, 31*(2), 90–93.

Colangelo, N., & LaFrenz, N. (1981). Counseling the culturally diverse gifted. *Gifted Child Quarterly, 25,* 27–30.

Frederickson, R. H., & Rothney, J. W. M. (1972). *Recognizing and assisting multipotential youth.* Columbus, OH: Merrill.

Kaufmann, F. (1981). The 1964–1968 Presidential Scholars: A follow-up study. *Exceptional Children, 48,* 164–169.

Kerr, B. A. (1985). *Smart girls, gifted women.* Columbus, OH: Ohio Psychology Publishing.

Kerr, B. A., Colangelo, N., Maxey, J., & Christensen, P. (1989). *Characteristics and goals of academically talented minority students.* Paper presented at International Educational and Vocational Guidance Conference, Edinburgh, Scotland.

Marshall, B. C. (1981). Career decision-making patterns of gifted and talented adolescents. *Journal of Career Education, 7,* 305–310.

Silverman, L. (1989). Career counseling for the gifted. In J. L. VanTassel-Baska & P. Olszewski-Kubilius (Eds.), *Patterns of influence on gifted learners: The home, the self, and the school* (pp. 201–213). New York: Teachers College Press.

VanTassel-Baska, J. (Ed.). (1990). *A practical guide to counseling the gifted in a school setting* (2d ed.). Reston, VA: The Council for Exceptional Children.

Watley, D. J. (1969). Career progress: A longitudinal study of gifted students. *Journal of Counseling Psychology, 16,* 100–108.

Prepared by Barbara Kerr, author of *Smart Girls, Gifted Women*; Associate Professor, Counseling Education, and Associate Director, Connie Belin National Center for Gifted Education, The University of Iowa.

This publication was prepared with funding from the U.S. Department of Education, Office of Educational Research and Improvement, under contract no. RI88062007. The opinions expressed in this report do not necessarily reflect the positions or policies of OERI or the Department of Education.

ERIC
Clearinghouse on Handicapped and Gifted Children
THE COUNCIL FOR EXCEPTIONAL CHILDREN
1920 Association Drive • Reston, VA 22091-1589
FAX (703) 264-9494

ERIC Digest

DIGEST #E493

EC–90

FOSTERING THE POSTSECONDARY ASPIRATIONS OF GIFTED URBAN MINORITY STUDENTS

On a beautiful spring day, as Maria was getting help with a paper she was writing, she said, "I'm going to hate working inside for the rest of my life."

I laughed and said, "It depends on what kind of job you have whether or not you have to work inside."

She looked both puzzled and surprised and then responded, "But I'm going to be a secretary," thus implying that her workdays would be spent indoors.

Stunned, I asked her why on earth she planned to be a secretary. She told me that her mother had always told her that being a secretary was "the very best job."

Why was I stunned that this 15-year-old Mexican-American girl planned to be a secretary? Because she attends a magnet school for gifted adolescents, scores at the 99th percentile on achievement tests, has an IQ that indicates superior intelligence, is highly creative, and has extraordinary writing ability.

Is this situation unique? Or is a discrepancy between actual potential and self-perceived potential common among gifted urban minority youth? Tragically, it appears to be the norm rather than the exception. Throughout their childhood, gifted students from middle- to upper-middle-class homes hear an achievement message, which includes plans for attending a good college or university. Many of these students have parents who attended college or who at least believe that a college education is essential in order to better oneself.

On the other hand, gifted students from lower-socioeconomic-status homes often have a different message communicated to them: Education is not essential to "making it" in the world. Getting and keeping a "job" is the goal, as opposed to choosing and being satisfied with the "career" to which middle-socioeconomic-status students aspire. Going beyond the high school diploma is generally seen as an unnecessary waste of time and money. Long-range goals are not a real part of urban minority families' schema; they tend to focus on the immediate future. The aspiration to achieve by capitalizing on one's intelligence and creativity is rarely fostered by these families. In fact, even if it is stimulated elsewhere, it may be suppressed by family pressure.

Gifted students "do not stop being gifted when they turn eighteen" (Daniel, 1985, p. 235), and just as they have needed differentiated attention focused on their elementary, middle, and high school education, so do they need differentiated attention focused on their postsecondary experience. If changes are to be made in the attitudes of gifted urban minority youth so that they seek the requisite college experiences, changes must be made in the attitudes of those people who have the most influence over their education. Teachers, counselors, principals, parents, and the students themselves must become more attentive to the differential requirements of this population of gifted students. These suggestions for consciousness-raising presented here are based on experience gained while working with gifted urban minority students in a large metropolitan area.

Teachers

For many gifted urban minority students, their teachers are the main, and sometimes only, source of encouragement and information regarding educational opportunities. A teacher's influence is immeasurable: A single teacher can be the catalyst for ensuring that a bright youth expands and develops himself or herself by attending college. In order to be this catalyst, however, the teacher must be aware and take steps toward fostering the notion that the student can have a better chance to succeed if a college education is sought and obtained.

First of all, teachers of gifted urban minority youth need to realize that there is a disparity between their aspirations for these students and the aspirations of the students themselves. Part of it can be attributed to a cultural difference, since the ranks of teachers are predominantly filled with people from middle-class backgrounds. Teachers should be sensitive to differences, but not judgmental, and should not assume that the students' background is deficient.

Second, teachers must realize that, as they begin to encourage these able students to attend college, some defensive attitudes may surface in both students and parents. Marion pointed out that

> A major need of black parents of low socioeconomic gifted and talented children is the maintenance of a normal family-school relationship. This is often the most difficult hurdle for parents and teachers to overcome, for giftedness and talentedness are not the necessary "looked for" virtues in many low-socioeconomic children. (1981, p. 33)

Defensiveness may manifest itself as students belligerently claim that they do not even want to go to college ("Who needs it anyway?") or as they nonchalantly accept material that is offered. Teachers must realize that these behaviors are often indicative that a student is receiving negative messages from home concerning college attendance. Continued gentle persuasion must be offered to such students and their parents.

Close and sensitive contact with parents is one way that teachers can have the desired influence on bright urban minority students' postsecondary aspirations. Telephone contacts, letters about upcoming college introductory events, information about scholarships, and personal conferences are all recommended for establishing and maintaining a rapport that will be conducive to parents' acceptance of a young person's going to college.

Just as frequent contact with parents is necessary to inculcate the idea of college for their children, so too is it necessary for the students to hear the message. It will take more than a few casual references dropped into conversations to instill this idea. Teachers must make a deliberate effort to establish with these students the idea that they should attend college and are capable of doing so.

In addition to talking directly to students about college, teachers can invite others to do so. For example, minority adults who have succeeded in business, education, the arts, or the professions could be invited as guest speakers. These adults can share with the students how they chose the college or university they did, how they financed their college education, how long it took them, what adjustments they had to make in college, and what benefits they have derived from the college experience.

Teachers can also keep a bulletin board on which they and members of the class can post newspaper and magazine articles regarding scholarships, grants, and other opportunities for minority students. Gifted education journals and newsletters (both state and national) carry such announcements, and the teacher or selected students could be responsible for monitoring these journals at the local university or public library.

A final awareness that teachers must have regarding their gifted urban minority students is the anxiety that many of these students feel regarding their post-high-school life. Some are the first in their family to finish high school. This accomplishment alone presents them with choices for which no family member has set a precedent and affords them opportunities for which they have no family role model. Others have already determined that they want further education and are fearful of the battle they anticipate when their parents become aware of these plans. A portion of these students are apprehensive regarding their ability to measure up, intellectually and financially, to the task of college participation. Teachers should make an effort to allay some of these fears and provide strategies that will enable students to accept and deal rationally with them.

Counselors

Because of the void that exists between high school counseling and college advising (Grites, 1979) and because of the additional obstacles and pressures that impinge on gifted urban minority students who attend college, the school counselor's role in preparing gifted urban minority youth for appropriate postsecondary school education cannot be underestimated. According to Dunham and Russo, counselors

> are needed to help direct the career education program for the gifted disadvantaged students. They are also needed for individual counseling to point out educational and career possibilities for each student. The counselor must be aware of the needs and obstacles that create problems for these students. (1983, p. 26)

More than other gifted students, gifted urban minority youth must have strong guidance in this area. In the recent Carnegie Report on teaching as a profession, the statement was made that "good counseling is indispensable for poor and minority youngsters, who often have few others to turn to for advice" (1986, p. 14). Counselors must take an early and active role in implanting the idea of college, lining up college recruiters, and obtaining financial aid for these students.

Impressing gifted urban minority students with the importance of attending college may involve the counselor in designing a career awareness program that iterates the educational preparations necessary for various career fields. Such a program should be an ongoing effort that integrates all that the counselor can determine about student interests, career availability, and community mores.

School counselors traditionally work with college recruiters, but the job becomes more involved when the recruits are gifted students from urban minority backgrounds. Counselors can work to raise the consciousness of recruiters regarding the differing demands of attracting bright urban youth. College recruiters need to realize that, to a greater extent than with other students, the parents must also be convinced—not just to send their child to XYZ college, but to send their child to *any* college.

In working with parents, the question "How much is this going to cost?" naturally arises. For low-socioeconomic-status parents, the cost of college tuition, room and board, books, and travel is a burden they cannot bear. Financial aid must be sought for these students—from the colleges and universities they will attend, from foundations, from the U.S. government, from service clubs and organizations, and from private individuals. Laying the groundwork for this sort of commitment is the most difficult part of the task. Once organizations and individuals have donated money and have seen the enormous positive results of their investment, they will continue to give. But the initial contacts require time and effort.

Even if a student receives a full scholarship, one aspect of college expense that is not covered by financial aid is the cost of "keeping up with the Joneses," that is, the cost of fitting in. The culture shock will be severe enough that the minority urban gifted student's trauma need not be accentuated by feeling completely out of place due to inappropriate clothing and the lack of ability to go out and grab a pizza. Counselors soliciting money for this sort of student support must make a strong case to potential contributors. They may find that successful minority adults who attended expensive, respected colleges or universities under a severe financial hardship are inclined to be supportive of such a worthwhile cause.

Another program that counselors could implement is one that teaches the social graces. While some would argue that brains, not table manners, will propel these students to where they want to be, our contention is that lack of table manners or the inability to respond appropriately in social situations can hinder bright students from attaining their potential. As Moore has stated, for gifted disadvantaged students "career education programs need to stress professional lifestyles, values, ethics, and goals" (1979, p. 20).

Early in gifted students' middle school and high school careers, counselors should begin to help them become cognizant of the criteria colleges and universities use in selecting among their applicants. This information can be obtained from college catalogs, by writing to admissions directors, or from recruiters. Charts of the criteria used by various schools could be posted in the counselors' offices, or general recommendations regarding courses taken, grades, test scores, and participation in extracurricular activities could be stressed with individual students. This must be done as early as possible so that students can take the necessary steps to ensure their acceptance by the college of their choice.

Administrators

Principals, assistant principals, and deans of instruction fill many roles, and those in schools that serve urban minority students function in additional capacities. The gifted members of this urban population need the administrators as their advocates.

The administrator can serve as advocate for minority urban gifted students in a number of ways. One way is as a contact person between the school and service organizations. The administrator of the school is one of the few members of the faculty who can attend daytime service club luncheons. Since these organizations are often looking for worthy causes to support, the administrator can inform them of the financial and personal needs of gifted students and can assure them of the potential of these students. Members of these organizations may choose to offer personal support by serving as mentors for one or more students.

Administrators must also recognize the enormous impact that they can have on these minority gifted students. Middle school and high school administrators who recognize the uniqueness and potential residing in particular students can make a special effort to offer personal support and encouragement. A student's life can be significantly affected by an administrator who takes the time to recognize achievements, provide solace for failures, and offer challenges for the future.

Administrators who have made their careers in one school district and one school often maintain contact with former students who have distinguished themselves in their postsecondary lives. Many of these former students would be willing to return to the school to visit informally with students or make presentations to classes or groups of students. Students will often hear what a person from similar circumstances has to say better than they will hear what a teacher or other community member says.

An administrator who is supportive of students who have extraordinary potential will realize that there are instances when certain teachers need extra time to work with gifted students. They may need time to plan in-depth lessons, take students on field trips, investigate a source for future reference, or consult with people who might contribute to the students' knowledge. Administrators have the latitude to make the necessary arrangements so that teachers can meet gifted students' learning needs.

Administrators can help rally teachers, counselors, and community members to a common effort to ensure not only that these bright students are not hindered in their effort to achieve excellence, but that they are facilitated in that effort. A principal can remove obstacles and prevent confrontations by smoothing the way and offering support.

Parents

Parents of gifted urban minority students are in a tough situation, which may result in push-me/pull-me messages being communicated to their children. On the one hand, parents are proud that their children do well in school and receive good grades and various honors—and, in fact, do better than they ever did in school. On the other hand, parents sometimes do not understand the extent of their gifted child's intelligence and may even be suspicious of it, possibly fearing that since their child is smart, he or she may try to be the boss of the house. A confusion of roles often results, particularly in Mexican-American homes where the children speak English and the parents do not, thus requiring that the children interact and interpret the world for their parents.

It is important for parents and children to be aware of the proper roles that each should play. Parents do need to be in charge of the home, while at the same time realizing that their children have needs and wants requiring their support and attention.

Parental support is also vital for gifted urban minority students while they are attending college. Based on the recent rash of data concerning "retention" of bright students in college, Laycock stated that

> One should expect the brightest to do the best, and therefore to finish what they begin. But SAT scores and class rank, the traditional admissions criteria, are not fully predictive. *More powerful may be family influences related to expectations, supportiveness, and sense of direction* [emphasis added]. (1984, p. 91)

Parents need to realize how powerful their influence is and how necessary their encouragement is. Gifted urban minority students need to know that their parents are proud of them and that they accept what their sons and daughters are doing.

Parents who have not attended college cannot empathize, but they can try to listen when their children have concerns about college and their participation in the college experience. Also, although parents may not realize the specific value of participating in more of the college experience than just attending classes, they should allow their children to take advantage of as many opportunities as are available to them.

Students

Gifted students in general are notorious for underestimating their ability. Gifted urban minority students are even less likely to assess their giftedness correctly. It will take a concerted effort over a period of years to convey to these young people the extent of their extraordinary ability and potential. They will need to be told, shown, exhorted, and badgered, time and time again, until they begin to comprehend that they have more to offer and more to gain, and therefore more to lose, than many of their age mates.

A concerted effort will also be necessary to instill the notion that college, and often graduate school, will be necessary for these highly able students to obtain the skills and education requisite for pursuing a chosen career. The difficulty of inculcating this idea into the schema of many of these gifted urban minority students cannot be underestimated. In many instances, it is a battle against generations of the belief of inherent inferiority.

These alterations are very likely to cause a change in a gifted minority student's position in the family. It is possible that the student's status will increase in the eyes of some family members, while in the eyes of others, the student will be seen as selling out or running out on family and culture (Gowan, 1960). This sort of mixed message, which includes rejection and guilt, will undoubtedly be a cause for distress in these able students, who tend to be highly sensitive (Colangelo & Exum, 1979). Counselors in high school can help warn students ahead of time about the possible ramifications of college attendance, or it may be necessary for counselors at colleges and universities to seek out students coming from impoverished backgrounds to determine whether or not they need help coping with the changes that are occurring in their family constellations. In addition, college and university counselors may need to implement support groups for gifted college freshmen to help them adjust successfully to college life (Friedlander & Watkins, 1984).

Once gifted urban minority students have recognized the worth in pursuing postsecondary education, they will need to take an active role in ferreting out scholarships and grants. They cannot depend on counselors to do this, even though in many cases, doing so is considered part of the job.

Conclusion

Gifted urban minority youth are fighting a number of uphill battles. However, the battles they fight and win have many more far-reaching ramifications than simply developing individual students' minds. Every time one of these students succeeds, his or her horizons are broadened, the vistas of his or her family are expanded, the reach of his or her community is extended, and the nation benefits. We have been considered "a nation at risk"; we can no longer afford to allow some of our most talented students to remain in an untenable life situation.

References

Carnegie Report (1986). *Education Week, 5*, 11–18.

Colangelo, N., & Exum, H. (1979). Educating the culturally diverse gifted: Implications for teachers, counselors, and parents. *G/C/T, 6*, 22–23, 54–55.

Daniel, N. (1985). School and college: The need for articulation. *Roeper Review, 7*, 235–237.

Dunham, G., & Russo, T. (1983). Career education for the disadvantaged gifted: Some thoughts for educators. *Roeper Review, 5*, 26–28.

Friedlander, S. R., & Watkins, C. E. (1984). Facilitating the development of gifted college students: A support group approach. *Journal of College Student Personnel, 25*, 559–560.

Gowan, J. (1960). The organization of guidance for the gifted. *Personnel and Guidance Journal, 39*, 275–279.

Grites, T. J. (1979). Between high school counselor and college advisor—A void. *Personnel and Guidance Journal, 58*, 200–204.

Laycock, F. (1984). Bright students and their adjustment to college. *Journal for the Education of the Gifted, 8*, 83–93.

Marion, R. L. (1981). Working with parents of the disadvantaged or culturally different gifted. *Roeper Review, 4*, 32–34.

Moore, B. A. (1979). A model career education program for gifted disadvantaged students. *Roeper Review, 2*, 20–22.

Prepared by Margaret E. McIntosh, Department of Curriculum and Instruction, College of Education, University of Nevada-Reno, and M. Jean Greenlaw, Regents Professor, University of North Texas, College of Education. Reprinted with permission from *Roeper Review 9*(2), (1986), 104–107.

This publication was prepared with funding from the U.S. Department of Education, Office of Educational Research and Improvement, under contract no. RI88062007. The opinions expressed in this report do not necessarily reflect the positions or policies of OERI or the Department of Education.

ERIC
Clearinghouse on Handicapped and Gifted Children
THE COUNCIL FOR EXCEPTIONAL CHILDREN
1920 Association Drive • Reston, VA 22091-1589
FAX (703) 264-9494

ERIC Digest

DIGEST #E494 **EC–90**

SUPPORTING GIFTED EDUCATION THROUGH ADVOCACY

Effective nurturing of giftedness in children and adolescents requires a cooperative partnership between home and school, one that is characterized by mutual respect and an ongoing sharing of ideas and observations about the children involved. To accomplish this partnership, parents and educators must know something about giftedness, understand the children's needs, and understand some basic principles of advocacy.

Parents and educators should understand how to be effective advocates because recognition that *all* gifted children require programs specifically tailored to their unique learning requirements requires responsible action. If a child's needs are not being met by a program, an appropriate starting point is a friendly conversation with the child's teacher. *Your Gifted Child* (1989) provides practical suggestions on individual advocacy. If the problem involves many children, such as might be the case when there is a need for program development or expansion, a unified group voicing shared concerns is far more effective than the complaints of one or two people. Advocacy groups also provide mutual support and share problem-solving strategies.

Effective group advocacy requires individuals to be knowledgeable, organize, define goals and objectives, understand the organization and structure of the local school system, use existing local and state systems, be committed, and be persistent and patient. Joining or establishing a parent group is a good place to start. Investigate groups such as your local Parent Teacher Association to find out whether or not there are others who share your concerns. Contact your State Department of Education Coordinator for Gifted Programs and ask how to get in touch with your state advocacy group.

Some cautionary advice is also in order for individuals concerned with becoming effective advocates. Patricia Bruce Mitchell provides a sensible approach to group advocacy in the following excerpt from An *Advocate's Guide to Building Support for Gifted and Talented Education*.

Understanding the Process and Avoiding the Pitfalls*

The term *advocate* originates from the Latin word for *legal counselor*. It means one who pleads in favor of, supports by argument, defends or vindicates. Thus, we consciously (and sometimes unconsciously) become advocates of the things we truly believe in and want to see develop and improve.

To best explain the concept of advocacy, we will begin with some of the wrong approaches, then move to a suggested process for using your drive and abilities to achieve success as an advocate.

Pitfall #1: Using an Adversarial Rather Than a Persuasive Approach

There is a natural tendency for us to model our behavior after the advocates for the rights of minorities and students with handicaps. They were successful, so we feel that if we do the same thing we will also reap big rewards for the children we represent. Unfortunately this line of reasoning will not work. Those other advocates were adept in various pressure tactics, but these tactics will not work as well for advocates of gifted students for three reasons:

1. The cause is different. The basic rights of children with handicaps and children from minority backgrounds were violated when they were systematically segregated from others. This inequity created a basis for guilt among those responsible for the segregation. Guilt makes us more responsive to pressure tactics. Unfortunately, few people feel guilty about doing something extra for children who have outstanding abilities, and it cannot be contended that gifted and talented children are being denied access to an education. Even though they may be bored and unhappy, they are still in school.
2. Times have changed. Everyone has learned to be more assertive as pressure tactics have be-

---

* Adapted from "Understanding the Process and Avoiding the Pitfalls," by P. B. Mitchell, by permission of the author.

come a part of everyday interactions. Thus, pressure no longer provides the high visibility for a cause that it once did.

3. We are wiser. We have learned a lot from the 1960s and 1970s. Legal proceedings can take years to complete. Even when the cause has been won, or a mandate incorporated into law, it will be a long time before state and local systems can implement the letter, much less the spirit, of the ruling. We are finally realizing that change is not an event; it is an evolutionary process.

In summary, "winning through intimidation" may work beautifully with hotel clerks who lose confirmed reservations, but it frequently backfires when trying to apply it to decision makers. The better approach would be to model yourself after a good salesperson. It may not be as inspiring as the "march into battle" adversarial approach, but it is more likely to be effective.

Pitfall #2: Assuming That People in Administrative and Political Positions Are Not Too Bright or Not Very Knowledgeable—or Both.

It is amazing to see advocates in action who are displaying obvious contempt for the legislators, board members, or administrators with whom they are dealing. Perhaps this occurs because of a disrespect for politicians or because the advocates feel that their superior knowledge of the subject at hand puts them in a superior position. Such attitudes and actions are destructive to any cause. They are particularly deadly if the advocate is speaking on behalf of gifted students. Even the words *gifted*, *talented*, or *exceptionally able* evoke fear of elitism.

Pitfall # 3: Being Impatient

It is tough to be patient when you see children whose abilities need attention and development *right now*. But patience in advocacy for gifted and talented students is more than a virtue, it is a requirement. Good program development takes time.

Pitfall #4: Being Human

Perhaps the toughest challenge you will face as an advocate for students who are gifted and talented will not be to testify before a legislative committee but to manage to get a group of fellow advocates to work together. Cooperative advocacy is essential, but advocates are human beings who may not feel that they have been given adequate input into or control over an advocacy effort such as seeking school board approval for a program. Such feelings may lead to undermining group efforts. It will take a chorus of committed persons to get the support needed for top quality programs for every gifted and talented child. Getting that chorus together will require a lot of effort and selflessness so that no one voice rises above the others.

Channeling Your Energies in the Right Direction Through Systematic Advocacy

Now that you have thought about what *not* to do, let us look at a process that can make your efforts more systematic and more successful. The process consists of the four basic phases summarized here. For more detailed information and a thorough discussion of each phase, consult *An Advocate's Guide to Building Support for Gifted and Talented Education* (Mitchell, 1981).

1. *Needs Assessment*. Find out what *is* currently going on for gifted and talented students in your district, and then determine what *should* happen. The discrepancy between the two defines what your needs are. The next step is to make a "political" assessment: Find out who is supportive, who is not supportive, who is undecided about improving programs for gifted and talented children, and what they will accept. A thorough assessment takes a lot of time, but it will pay much greater dividends than any other time investment.
2. *Planning*. Map out what you want to happen, how you will present your request, and how you will get the votes needed for approval. The plan should provide enough detail so that everyone understands what is to be done, who is responsible, and how and when it will be accomplished.
3. *Contact*. Present your request to the decision makers whose approval is essential. There are many ways that you can make informal and formal contact with decision makers and communicate your concerns for gifted and talented children. Lay the groundwork by finding ways to make contact in informal settings. Use informal contacts such as social functions or student awards ceremonies as a way to build support throughout the year, but particularly in the months preceding a formal request. Making a presentation or writing a letter to the board of education, the legislature, or one of their committees are examples of formal contact. Extensive preparation and rehearsal are essential.
4. *Follow-up and Evaluation*. Conduct a "postmortem" on your effects to determine what to do and what not to do next time. This phase usually merges into the needs assessment of the next advocacy effort, so the process is a continuous cycle.

It takes a lot of stamina to give your best energy and ideas to all four phases. The temptation is to focus on the contact, with some quick planning just before but little or no needs assessment or follow-up. Resist the temptation. It is essential to carry out the necessary activities in all four phases.

Establishing and Maintaining a Successful Parent Advocacy Group

If you want your school district to start or expand a program for gifted students, organization is the key to effective advocacy. The following guidelines, distilled from resources listed at the end of this article, may be helpful:

1. Focus on a mission and a sense of purpose. Your organization must be clear about its long-term goals and objectives and be able to describe them clearly to others. "Helping gifted children" sounds good, but is far too broad to hold your group together when you face the inevitable constraints and problems.
2. Pick a place and call a meeting of not only interested parents, but also business leaders, and school professionals. At some future time, they might be your strongest allies, since they are concerned about the quality of local education and the graduates they hire. Invite an outside expert to give a brief overview of gifted education, the need for differentiated education, and the components of effective programs. Remember, not all programs for gifted students are effective. Decide on a name for the group, bearing in mind that the dispute over using the word *gifted* can take minutes, hours, or months to resolve. Leave at least a half hour for questions and comments. People need to feel involved!
3. Establish your steering committee. If, at the end of the first meeting, you have five committed people, you have achieved success. Decide what you want to accomplish and the frequency of meetings. Most boards meet at least once a month, and the members speak to one another frequently between meetings.
4. Contact your state advocacy group. Ask whether they have a constitution and by-laws and whether a ready-made network exists in your state. If so, affiliation may be beneficial.
5. Adopt a constitution that spells out the goals of the organization and the mechanics of its operation. Get sample copies of by-laws from other groups, and design your own to fit local conditions. Keep them simple. Aims and purposes should be listed in Articles of Organization. These can include, for example, "to provide information and to be generally helpful to parents of gifted children; to educate the public and to promote understanding in the community of the educational needs of gifted children; to act as a center for the exchange of ideas with other groups interested in education for the gifted; and to cooperate with such organizations in promoting educational opportunities for gifted children." Goals should be accompanied by measurable objectives and should answer the question, "What do I want to happen?"

   In addition to by-laws, you will need written policies and procedures for conducting group business, descriptions of the purposes of all standing committees, and job descriptions for all positions. Agree on specific services your group can offer the community and how those services might be provided. For example, you might agree to inform parents on meeting the social and emotional needs of gifted children by identifying a speaker and holding a public meeting. Be sure to consider any negative consequences. One group placed a meeting notice in the local newspaper and later discovered that they had created a groundswell both for and against their goals and objectives.
6. Identify and respect the group that holds the power. School board members and state legislators are busy people who may be neutral or supportive of the idea of special programs for gifted children but simply not know enough about the subject. Initial contacts should be used to provide information on student needs in your district. Your message should be direct and concise, and it should answer specific questions that the decision-maker wants answered. Inform yourself about your district's budget cycle. Distant goals require at least 2 years of advance planning.
7. Allow professionals to develop the program. Be careful to remain in your role as advocate. Your job is to help establish and maintain a system so that they can work more effectively in their roles as administrators, curriculum specialists, and teachers. One well-established parent group, with the support of curriculum specialists, used its resources to design and conduct a countywide secondary school needs assessment. The information was given to school officials along with a written request that the district assign a parent/student/professional task force to develop a program. The task force studied the parent report, investigated possible ways to meet the needs of gifted adolescents, and eventually submitted a report to the school board. This cooper-

ative venture resulted in a pilot program several years later. By the time the pilot program was put in place, everyone—parents, students, teachers, administrators—felt responsible for its ultimate success.

8. Conduct short- and long-term evaluation of the advocacy process. Your organization can strengthen and grow if it evaluates everything it does in terms of goals and objectives and then acts on the results.
9. Provide reinforcement for group members. Successful advocacy groups for gifted children, like most organizations, function primarily with volunteer help. Praise and recognition for volunteers is essential.
10. Be an informed advocate. A healthy advocacy organization grows and changes with the evolution of what is learned about gifted children, their special needs, and effective political processes. To maintain credibility and assist community members, an organization should be informed about national, state, and regional trends in gifted education, including operational definitions of the term *gifted*. The organization also must establish informal or formal relationships with local, state, and national levels of government and other organizations. Learn to work cooperatively with consultants, legislators, state education groups, other advocacy groups both within the state and beyond. Effective advocacy can be boiled down to positive use of accurate information by a large number of people.
11. Enjoy the people you meet, the friends you make, and the satisfaction derived from your efforts on behalf of gifted children.

Resources

American Association for Gifted Children. (1980). *Reaching out: Advocacy for the gifted and talented.* New York: Teachers College Press.

Fairfax County Association for the Gifted. (1979). *Articles of Organization.* Fairfax, VA: Author.

Gallagher, J. (1983). A model of advocacy for gifted education. In J. Gallagher, S. Kaplan, & I. Sato (Eds.), *Promoting the education of the gifted/talented: Strategies for advocacy* (pp. 1–9). Ventura, CA: The National/State Leadership Training Institute on the Gifted and the Talented.

Ginsberg-Riggs, G. (1984). Parent power: Wanted for organization. *Gifted Child Quarterly, 28* (3), 111–114.

Halperin, S. (1981). *A guide for the powerless and those who don't know their own power.* Washington, DC: Institute for Educational Leadership.

Kraver, T. (1981). Parent power: Starting and building a parent organization. In P. B. Mitchell (Ed.), *An advocate's guide to building support for gifted and talented education* (pp. 24–30). Washington, DC: National Association of State Boards of Education.

Mitchell, P. B. (1981). Effective advocacy: Understanding the process and avoiding the pitfalls. In P. B. Mitchell (Ed.), *An advocate's guide to building support for gifted and talented education* (pp. 5–23). Washington, DC: National Association of State Boards of Education.

Smutny, J., Veenker, K., & Veenker, S. (1989). *Your gifted child.* New York: Facts On File.

Resources on Advocacy

The following groups provide valuable information and assistance to parent-advocates who want to play a significant role in their children's education:

National Committee for Citizens in Education (NCCE), ACCESS Clearinghouse, 10840 Little Patuxent Parkway, Suite 301, Columbia, MD 21044, 301/997-9300 or 800/NETWORK (638-9675). A not-for-profit organization devoted to improving the quality of public schools through increased public involvement, NCCE maintains a computerized database and provides information and resources to parents and other citizens. NCCE also trains parents and educators to work constructively together, provides handbooks and films, monitors federal legislation, provides technical assistance, and publishes a monthly newspaper.

Institute for Responsive Education (IRE), 605 Commonwealth Avenue, Boston, MA 02215. IRE's publications list includes many helpful books and pamphlets on community participation in education.

Children's Defense Fund (CDF), 122 C Street, NW, Washington, DC 20001. Write or call for a publications list. CDF's advocacy for the children of America is very effective; its publications are excellent resources. Especially recommended is *It's Time to Stand Up for Your Children: A Parent's Guide to Child Advocacy.*

Prepared by Sandra L. Berger, past president of a parent advocacy association and author of *College Planning for Gifted Students.*

This publication was prepared with funding from the U.S. Department of Education, Office of Educational Research and Improvement, under contract no. RI88062007. The opinions expressed in this report do not necessarily reflect the positions or policies of OERI or the Department of Education.

ERIC
Clearinghouse on Handicapped and Gifted Children
THE COUNCIL FOR EXCEPTIONAL CHILDREN
1920 Association Drive • Reston, VA 22091-1589
FAX (703) 264-9494

ERIC Digest

DIGEST #E495 **EC–90**

READINGS AND RESOURCES FOR PARENTS AND TEACHERS OF GIFTED CHILDREN

Books Containing General Information About Gifted and Talented Students, 1985–1989

Borland, J. H. (1989). *Planning and implementing programs for the gifted.* A comprehensive examination of and guide to issues and practices related to developing programs for gifted students. New York: Teachers College Press.

Clark, B. (1988). *Growing up gifted* (3rd ed.). This comprehensive reference is divided into three major sections: understanding the gifted individual, the school and the gifted individual, and resources. Includes sections on brain research, the emotional and social aspects of growing up gifted, and current educational models. Columbus, OH: Merrill.

Coleman, L. J. (1985). *Schooling the gifted.* A general reference divided into two parts: development and identification (giftedness, guidance considerations, and creativity), and educational practices (administrative arrangements, curriculum, instructional strategies). Menlo Park, CA: Addison-Wesley.

Cox, J., Daniel, N., & Boston, B. O. (1985). *Educating able learners.* The result of a 4-year comprehensive national study of programming; provides a broad database, looks at the backgrounds of creative individuals, and examines programs with a record of success. Austin: University of Texas Press.

Davis, G. A., & Rimm, S. B. (1989). *Education of the gifted and talented* (2nd ed.). Provides a broad overview of the field, including an introduction to giftedness, characteristics, programs, identification, and program evaluation. Englewood Cliffs, NJ: Prentice Hall.

Feldhusen, J., VanTassel-Baska, J., & Seeley, K. (1989). *Excellence in educating the gifted.* Well-known authors provide a comprehensive view of giftedness. Divided into four parts: individual differences and special populations; program development and evaluation; curriculum and instruction; and achievement of excellence. Denver: Love Publishing.

Gallagher, J. J. (1985). *Teaching the gifted child* (3rd ed). A classic comprehensive text divided into five general parts: broad overview of gifted students and their needs; content modifications in specific academic areas; productive thinking and creativity; administration and training; and special problem areas such as gifted underachievers and the culturally different gifted. Boston: Allyn and Bacon.

Horowitz, F. D., & O'Brien, M. (Eds.). (1985). *The gifted and talented: Developmental perspectives.* A collection of articles written by psychologists and educators about psychosocial issues. Discusses topics such as the nature of giftedness and the role of society in preparing gifted children for a productive life. Washington, DC: American Psychological Association.

Maker, C. J. (1986). *Critical issues in gifted education: Defensible programs for the gifted.* Presents the views of different authors on each of five broad topics: defining giftedness, developing curricula, enrichment versus acceleration, evaluating programs, and defending programs. Rockville, MD: Aspen.

Maker, C. J., & Schiever, S. W. (Eds.). (1989). *Critical issues in gifted education: Defensible programs for cultural and ethnic minorities.* Presents the views of different authors on each of four groups: Hispanics, American Indians, Asian Americans, and Blacks. Editors provide a synthesis in each section. Austin, TX: Pro-Ed.

Parke, B. N. (1989). *Gifted students in regular classrooms.* Divided into four parts: establishing a framework (characteristics, identification, planning programs); selecting programs; designing curriculum; and maintaining programs. Practical strategies and case studies. Boston: Allyn and Bacon.

Parker, J. P. (1989). *Instructional strategies for teaching the gifted.* Classroom-tested ideas and activities, curriculum models, detailed strategies, and chapters on the core curriculum subjects. Boston: Allyn and Bacon.

VanTassel-Baska, J., Feldhusen, J., Seeley, K., Wheatley, G., Silverman, L., & Foster, W. (Eds.). (1988). *Comprehensive curriculum for gifted learners.* Divided into five sections: introduction, the process of curriculum making, adapting curriculum in the content areas, integrating curriculum from key learning realms, and the process of curriculum doing. Boston: Allyn and Bacon.

VanTassel-Baska, J., & Olszewski-Kubilius, P. (Eds). (1989). *Patterns of influence on gifted learners: The home, the self, and the school.* A series of 15 articles that offers a comprehensive look at the interrelated roles played by school, family, and personal characteristics critical to talent development. New York: Teachers College Press.

Whitmore, J. R., & Maker, C. J. (1985). *Intellectual giftedness in disabled persons.* A series of case studies and discussions about gifted individuals with hearing, visual, physical, and learning disabilities. Austin, TX: Pro-Ed.

Practical Self-Help Books, 1979–1989

Adderholdt-Elliott, M. (1987). *Perfectionism: What's bad about being too good?* Explores the differences between healthy ambition and unhealthy perfectionism and gives strategies for getting out of the perfectionist trap. Minneapolis: Free Spirit.

Alvino, J., and the editors of *Gifted Children Monthly* (1985). *Parents' guide to raising a gifted child.* This practical guide to raising and educating gifted children gives tips on promoting intellectual and creative thinking and research skills and on counseling. Lists the best books and games available and assesses the importance of computers. Boston: Little, Brown.

Berger, S. (1989). *College planning for gifted students.* Presents a way to identify gifted students; provides a 6-year plan that guides the gifted student through critical college and career choices based on knowledge of self and educational options. A practical resource for gifted students, counselors, teachers, and parents. Reston, VA: The Council for Exceptional Children.

Delisle, J. D. (1987). *Gifted children speak out.* Part I is a compilation of gifted childrens' (ages 7–13) answers to questions about their abilities and their concerns. Part II, to be used by teachers and parents, is an extensive discussion/activity guide. Minneapolis: Free Spirit.

Delisle, J., & Galbraith, J. (1987). *The gifted kids' survival guide II* (Ages 11–18). Helps students understand the meaning of giftedness, how to take charge of their own education, how to handle other people's expectations, and how to make and keep friends. Minneapolis: Free Spirit.

Ehrich, V. (1982). *Gifted children: A guide for parents and teachers.* Written in nontechnical language, this book answers commonly asked questions about gifted children. Provides a wide range of information from preschool through career planning for the college student and includes an extensive resource and reference list. New York: Trillium Press.

Galbraith, J. (1984). *The gifted kids' survival guide* (Ages 10 and under). Support and practical suggestions for gifted youngsters who are struggling with typical problems such as schoolwork, peer relationships, and community expectations. Minneapolis: Free Spirit.

Halsted, J. W. (1988). *Guiding gifted readers—From preschool to high school.* Discusses the emotional and intellectual needs of gifted youngsters. Recommends books to meet emotional needs through guided group discussions and intellectual needs through reading guidance. An excellent guide for parents, teachers, counselors, and librarians who work with gifted children. Columbus: Ohio Psychology Publishing.

Kerr, B. (1986). *Smart girls, gifted women.* A thoughtful book that describes why bright girls who show promise in childhood and adolescence often fail to reach their potential. Helps parents and teachers become aware of how to prevent difficulties. Vignettes of eminent women, relevant research, and practical suggestions. Columbus: Ohio Psychology Publishing.

Moore, L. P. (1981). *Does this mean my kid's a genius?* Offers advice to parents ranging from identifying a child with unusual capabilities to beginning education at home. New York: McGraw-Hill.

On being gifted. (1978). Written by students (ages 15–18) who participated in the National Student Symposium on the Education of the Gifted and Talented, this book is an articulate presentation of student concerns such as peer pressure, teacher expectations, and relationships. Recommended for educators, parents, and students. New York: Walker & Company.

Rimm, S. (1986). *The underachievement syndrome: Causes and cures.* A psychologist specializing in underachieving gifted students uses case studies and descriptions of prototypes to discuss symptoms, causes, and cures. Watertown, WI: Apple Publishing.

Smutny, J. F., Veenker, K., & Veenker, S. (1989). *Your gifted child: How to recognize and develop the special talents in your child from birth to age seven.* A practical sourcebook containing a wealth of information for parents and educators of young gifted children. Leads parents through infancy and early childhood, discussing topics such as language development, creativity, and how to choose schools. Provides a developmental checklist. New York: Facts On File.

Vail, P. (1987). *Smart kids with school problems.* A learning disability may account for underachievement in some gifted students. This valuable book emphasizes the traits of gifted students and the learning styles that set gifted/learning disabled students apart. Includes an annotated bibliography and resources. New York: E. P. Dutton.

Webb, J., Meckstroth, B., & Tolan, S. (1982). *Guiding the gifted child: A practical source for parents and teachers.* Ten topics are discussed including discipline, stress management, communication of feelings, and family relationships. The book is an outgrowth of continuing work at Wright State University. Columbus: Ohio Psychology Publishing.

Whitmore, J. R. (1980). *Giftedness, conflict, and underachievement.* A comprehensive work that reviews the literature; describes a long-term research project; and provides suggestions on how counselors, educators, and parents can help. Boston: Allyn and Bacon.

Books on Specific Areas in Gifted Education

Armstrong, T. (1987). *In their own way: Discovering and encouraging your child's personal learning style.* A former teacher and learning disabilities specialist describes learning differences and provides suggestions. Los Angeles: J. P. Tarcher. Distributed by St. Martin's Press.

Berger, S. (Ed.) (1990). *ERIC flyer files on gifted learners.* A collection of reproducible fact sheets about guiding and educating gifted and talented students. These newly developed resources provide the perfect handout for meetings with parents, teachers, and the community. Reston, VA: The Council for Exceptional Children.

Buescher, T. M. (Ed.). (1987). *Understanding gifted and talented adolescents: A resource guide for counselors, educators, and parents.* For professionals and parents interested in the intellectual, social, and emotional traits and needs of gifted and talented adolescents. Appropriate for people with little reading experience in the field as well as those with expertise. Evanston, IL: The Center for Talent Development, Northwestern University.

Colangelo, N., & Zaffrann, D. (Eds.). (1979). *New voices in counseling the gifted.* A collection of articles containing theoretical and practical information on topics such as the role of the school guidance counselor, creativity, girls' attitudes, culturally diverse gifted, and career development. Dubuque, IA: Kendall/Hunt.

Daniel, N. & Cox, J. (1988). *Flexible pacing for able learners.* Flexible pacing is any provision that places students at an appropriate instructional level, creating the best possible match between students' achievement and instruction. This book describes workable options appropriate for all grade levels. Examples illustrate how flexible pacing works in classrooms with real students across the country. Reston, VA: The Council for Exceptional Children.

Elkind, D. (1981). *The hurried child: Growing up too fast, too soon.* A noted behavioral scientist argues that modern society is robbing children of childhood and examines the issues of stress and expectations in contemporary culture. Reading, MA: Addison-Wesley.

Feldman, R. D. (1982). *Whatever happened to the Quiz Kids? Perils and profits of growing up gifted.* The author, one of the original Quiz Kids, provides insights on her own childhood and the lives of other Quiz Kids, drawing conclusions about the challenges of growing up gifted. Chicago: Review Press.

Gardner, H. (1985). *Frames of mind: The theory of multiple intelligences* (rev. ed.). Gardner has described seven different types of intelligence: linguistic, musical, logical-mathematical, spatial, bodily-kinesthetic, interpersonal, and intrapersonal. He suggests that individuals tend to display abilities in one or two specific areas. This book provides theoretical information on the nature of intelligence. New York: Basic Books.

Karnes, M. B. (1983). *The underserved: Our young gifted children.* Offers a comprehensive perspective on identification and programming for gifted children during the preschool years. Provides a rationale for early identification and programming. Reston, VA: The Council for Exceptional Children.

Kaufmann, F. (1981). *Your gifted child and you* (rev. ed.). A brief and informative book containing a concise and readable introduction to the identification, nurturing, and problems of the gifted youngster. Reston, VA: The Council for Exceptional Children.

Mitchell, P. B. (1981). *An advocate's guide to building support for gifted and talented students.* A guide to effective advocacy for parents and community leaders. Specific procedures and a systematic approach are among this guide's many strengths. Alexandria, VA: National Association of State Boards of Education.

Sternberg, R. (1985). *Beyond IQ: A triarchic theory of human intelligence.* A scholarly volume that outlines an approach to understanding intelligence and argues against the role of traditional IQ tests in education. New York: Cambridge University Press.

VanTassel-Baska, J. (Ed.). (1990). *A practical guide to counseling the gifted in a school setting* (2nd ed.). This useful monograph provides an overview of counseling trends and issues, discusses the characteristics of gifted children and their related counseling needs, and provides practical models. Reston, VA: The Council for Exceptional Children.

Journals/Periodicals

Advanced Development, a journal on adult giftedness, is the official publication of the Institute for the Study of Advanced Development. Provides articles of interest to professionals and those with some reading experience in the field of gifted education. Published annually by Snowpeak Publishing, Inc., P. O. Box 3489, Littleton, CO 80122.

Gifted Child Quarterly is the official publication of the National Association for Gifted Children (NAGC), published four times a year. It contains articles of interest to professionals and those with some reading experience in the field of gifted education and counseling. NAGC membership includes the journal. NAGC, 4175 Lovell Road, Box 30, Suite 140, Circle Pines, MN 55014.

Gifted Child Today (formerly G/C/T) is directed at teachers and parents. It avoids jargon and provides practical advice on working with gifted, creative, and talented children. Articles on research and programming, and a lively advice column are included in each issue. Published bimonthly. P. O. Box 637, 100 Pine Avenue, Holmes, PA 19043.

Journal for the Education of the Gifted (JEG) is the official publication of The Association for the Gifted (TAG), and is aimed at experienced readers of the literature. For membership or subscription information, TAG, 1920 Association Drive, Reston, VA 22091.

Roeper Review is a refereed journal that accepts contributions from teachers, counselors, scholars, researchers, and students. This journal focuses on current research and issues that relate to the lives and experiences of gifted children. For educators, counselors, and parents who have had some experience in reading in the field. Published quarterly. Roeper Review, P. O. Box 329, Bloomfield Hills, MI 48013.

Understanding Our Gifted, published bimonthly, addresses the intellectual, social, and emotional needs of gifted youth through regular columns and feature articles. The perspective is on giftedness as advanced development rather than as achievement or potential achievement. Provides practical information on current issues in a clear, interesting writing style. Snowpeak Publishing, P. O. Box 3489, Littleton, CO 80122.

Journals on Creativity

The Creative Child and Adult Quarterly, 8080 Springvalley Drive, Cincinnati, OH 45236.

The Journal of Creative Behavior, 1050 Union Road, Buffalo, NY 14224.

Selected Summer Guides

Advisory List of International Educational Travel and Exchange Programs. Council on Standards for International Educational Travel (CSIET), 3 Loudoun Street, SE, Suite 3, Leesburg, VA 22075.

Boarding Schools: Special Programs (Summer). National Association of Independent Schools (NAIS), 75 Federal Street, Boston MA 02170.

Directory of Student Science Training Programs for High Ability Precollege Students. Science Service, Inc., 1719 N Street, NW, Washington, DC 20036.

Educational Opportunity Guide. Duke University Talent Identification Program, Box 40077, Durham, NC 27706.

Guide to Accredited Camps. American Camping Association (ACA), Bradford Woods, 5000 State Road 67 North, Martinsville, IN 46151-7902.

Peterson's Summer Opportunities for Kids and Teenagers. Peterson's Guides, Princeton, NJ 08543.

Summer on Campus by Shirley Levin (1989). College Board Publications, Box 886, New York, NY 10101-0886.

Summer Options for Teenagers by Cindy Ware (1990). Simon & Schuster, 15 Columbus Circle, New York, NY 10023.

Teenagers' Guide to Study, Travel, and Adventure Abroad. Council on International Educational Exchange (CIEE), 205 East 42nd Street, New York, NY 10017.

Volunteer! by Marjorie Adoff Cohen (1989). Council on International Educational Exchange (CIEE), 205 East 42nd Street, New York, NY 10017.

Associations

American Association for Gifted Children
P. O. Box 2745
Dayton, OH 45435

Gifted Child Society, Inc.
190 Rock Road
Glen Rock, NJ 07452

National Association for Gifted Children (NAGC)
1155 15th Street, NW, Suite 1002
Washington, DC 20005

The Association for the Gifted (TAG)
The Council for Exceptional Children (CEC)
1920 Association Drive
Reston, VA 22091

Supporting the Emotional Needs of the Gifted, Inc. (SENG)
Wright State University
P. O. Box 1102
Dayton, OH 45401

Publishers and Resources for Materials

Addison-Wesley, One Jacob Way, Reading, MA 01867

Allyn and Bacon, 160 Gould Street, Needham Heights, MA 02194

American Psychological Association, 1200 17th Street NW, Washington, DC 20036

Apple Publishing Co., W. 6050 Apple Road, Watertown, WI 53094

Aristoplay, P. O. Box 7028, Ann Arbor, MI 48107

Aspen Publishers, 1600 Research Boulevard, Rockville, MD 20850

A. W. Peller & Associates, Educational Materials, 210 Sixth Avenue, P. O. Box 106, Hawthorne, NJ 07507

Basic Books, 10 E. 53rd Street, New York, NY 10022

Blue Marble, 118 North Ft. Thomas Avenue, Ft. Thomas, KY 41075

R. R. Bowker, 11800 Avenue of the Americas, New York, NY 10036

Cambridge University Press, 40 W. 20th Street, New York, NY 10011

The Council for Exceptional Children, 1920 Association Drive, Reston, VA 22091

Creative Learning Press, P. O. Box 320, Mansfield Center, CT 96250

Curriculum Associates, 5 Esquire Road, North Billerica, MA 01862-2589

D.O.K. Publishers, P. O. Box 605, East Aurora, NY 14052

E. P. Dutton, 2 Park Avenue, New York, NY 10016

Educators Publishing Service, Inc., 75 Moulton Street, Cambridge, MA 02238-9101

Facts on File, 460 Park Avenue South, New York, NY 10016

Foxtail Press, P. O. Box 2996, La Habra, CA 90632-2996

Free Spirit Publishing Co., 123 North Third Street, Suite 716, Minneapolis, MN 55401

Gifted & Talented Publications, Inc., P. O. Box 115, Sewell, NJ 08080

Good Apple, P. O. Box 299, Carthage, IL 62321-0299

Kendall/Hunt, 2460 Kerper Boulevard, Dubuque, IA 52001

Little, Brown & Company, 34 Beacon Street, Boston, MA 02106

Love Publishing Co., 1777 S. Bellaire Street, Denver, CO 80222

McGraw-Hill, 1221 Avenue of the Americas, New York, NY 10020

Merrill Publishing Co., 300 Alum Creek Drive, Columbus, OH 43216

Midwest Publications, P. O. Box 448, Pacific Grove, CA 93950

Montessori Matters and E-Z Learning Materials, 701 East Columbia Avenue, Cincinnati, OH 45215

The National Association of State Boards of Education, 701 North Fairfax Street, Alexandria, VA 22314

NL Associates, Inc., P. O. Box 1199, Hightstown, NJ 08520

The Ohio Psychology Publishing Company, 400 East Town Street, Suite 020, Columbus, OH 43215

Opportunities for Learning, 2041 Nordhoff Street, Chatsworth, CA 91311

Pied Piper, 2922 North 35th Avenue, Suite 4, Drawer 11408, Phoenix, AZ 85061-1408

Prentice Hall, Sylvan Avenue, Englewood Cliffs, NJ 07632

Pro-Ed, 8700 Shoal Creek Boulevard, Austin, TX 78758

Provoking Thoughts, Institute for the Development of Educational Alternatives, P. O. Box 1104, Austin, MN 55912

Review Press, 213 W. Institute Place, Chicago, IL 60610

Scholastic Testing Service, Inc., 480 Meyer Road, P. O. Box 1056, Bensenville, IL 60106-8056

St. Martin's Press, 175 Fifth Avenue, New York, NY 10010

Teachers and Writers Collaborative, 5 Union Square West, New York, NY 10003

Teachers College Press, Columbia University, 1234 Amsterdam Avenue, New York, NY 10027

Trillium Press, P. O. Box 209, Monroe, NY 10950

University of Texas Press, P. O. Box 7819, Austin, TX 78713

Ventura County Superintendent of Schools, Attn: LTI Publications, 535 East Main Street, Ventura, CA 93009

Walker & Company, 720 Fifth Avenue, New York, NY 10019

Zephyr Press, P. O. Box 13448, Tucson, AZ 85732-3448

Compiled by Sandra L. Berger.

This publication was prepared with funding from the U.S. Department of Education, Office of Educational Research and Improvement, under contract no. RI88062007. The opinions expressed in this report do not necessarily reflect the positions or policies of OERI or the Department of Education.

ERIC Clearinghouse on Handicapped and Gifted Children
THE COUNCIL FOR EXCEPTIONAL CHILDREN
1920 Association Drive • Reston, VA 22091-1589
FAX (703) 264-9494

ERIC Digest

DIGEST #464 1989

MEETING THE NEEDS OF ABLE LEARNERS THROUGH FLEXIBLE PACING

This digest is based on information presented in *Flexible Pacing for Able Learners* (1988) by Neil Daniel and June Cox. This CEC-ERIC book includes descriptions and anecdotal information from 32 successful programs in 18 states. Highlights and case studies provide a composite picture of how flexible pacing is managed and how it works.

What Is Flexible Pacing?

Flexible pacing includes any program in which students are taught material that is appropriately challenging for their ability and allows them to move forward in the curriculum as they master content and skills. For able or gifted learners, flexible pacing generally means some form of acceleration, accomplished by moving the student up to advanced content or by moving advanced content down to the student. The rate of progress can be varied in either direction. With flexible pacing *all* students can progress through school at a pace that provides a steady challenge without crippling frustration or unreasonable pressure.

Methods to Achieve Flexible Pacing

In practice, flexible pacing can be achieved by a variety of methods:

- *Continuous progress.* Students receive appropriate instruction daily and move ahead as they master content and skills. The purest form of flexible pacing, *continuous progress* breaks the age-in-grade lockstep.
- *Compacted course.* Two or more courses, usually scheduled for a semester each, are compacted into an abbreviated time.
- *Advanced level course.* Students are enrolled in courses normally taught at a higher grade level.
- *Grade skipping.* Students move ahead 1 or more years, skipping levels in the normal sequence of promotion.
- *Early entrance.* Students enter elementary school, middle school, high school, or college earlier than the age usually prescribed.
- *Concurrent or dual enrollment.* Students at any grade level take classes in two school levels. For example, elementary school students take some classes at junior high; junior high students take some high school classes; high school students enroll for some courses at a college or university.
- *Credit by examination.* Students enter an advanced-level course or receive credit upon satisfactory completion of a comprehensive examination or upon certification of mastery. The best known examples are the College Board's advanced placement and college-level examination programs.

How Can Schools or Districts Begin to Implement a Flexible Pacing Program?

Flexible pacing will not occur systematically or to any significant extent unless the school or district has a policy that strongly encourages the practice and provides the necessary inservice support and planning time for teachers. It is often best to introduce the program gradually, with a carefully targeted student population. Some districts have selected a single subject area, often mathematics, as a starting place. Other school districts have successfully introduced continuous progress programs for students of all abilities at selected school sites. This approach works best when the principal and teachers choose to work in that setting.

Flexible pacing entails not only flexible instruction but also flexible management systems. Today, in many schools, computerized storage of records and schedules makes flexible pacing options easier to use, whereas the recordkeeping alone would have been overwhelming just a few years ago. Attention to individual needs for every student or selected groups of students can be developed piece by piece. Planners should start wherever appropriate: with a single subject, a single set of students, or a single school.

Teacher Changes Needed to Promote Flexible Pacing

Allowing students to move through the school curriculum at their own pace requires a special commitment from every teacher. First, the teacher must agree that the best way to serve students is to allow them to progress in key subject areas as they master content and skills. The teacher must recognize that as a consequence students will be placed for instruction with other students at the same achievement level, not necessarily with those of the same age.

A shift to flexible pacing normally requires training or retraining in teaching methods and classroom management that support some form of continuous progress. Inservice instruction may include conferences and workshops on methods of grouping, team teaching, curriculum sequencing, and a variety of topics specific to the subject of pacing. Teachers may also need training in more advanced or broader content within specialty areas. At the secondary level, summer institutes that prepare teachers for the College Board's advanced placement courses or the International Baccalaureate are well established. These cooperative programs contribute by helping teachers address the needs of advanced high school students undertaking college-level coursework on their high school campuses.

What Are the Benefits of Flexible Pacing?

The educational benefit of flexible pacing is individualization of instruction and learning to a higher degree than is possible when students all move in lockstep. Students have found curriculum more challenging and less repetitious. Arranging school-wide scheduling in blocks (e.g., mathematics from 9:00 to 10:00 a.m., reading and language from 10:00 to 11:00) permits an easy flow in which all students are studying the same subject at the same time but at different levels. Once grade labels are removed from achievement levels and disassociated from chronological age, students of all abilities appear to thrive.

The desired outcome of sound teaching and learning, whatever the pace, is mastery of concepts and skills. In a school with continuous progress, students can move ahead naturally as they are ready. They are not forced to choose between remaining in grade level, where they may be bored, or skipping ahead, where they may miss learning critical skills or information.

How Are People Reacting to Flexible Pacing Programs?

Typically, teachers, administrators, and parents of children in schools with flexible pacing are excited by the progress of their children. Although flexible pacing is too new to have established a strong database in research, most schools using it have found that it allows highly able learners to move ahead rapidly in all aspects of learning and skill development.

One survey of students in the Las Cruces Public Schools (Daniel & Cox, 1988) showed that students welcomed the opportunity for early entry into a more complex curriculum. They viewed their years in accelerated classes as productive and challenging. All of the 37 students in the program said that if they had the choice to make over again, they would still choose the accelerated curriculum. For each of them, the advantages far outweighed any disadvantages.

Flexible Pacing for Able Learners is available from The Council for Exceptional Children, 1920 Association Drive, Reston, VA 22091.

RESOURCES

Cox, J., Daniel, N., & Boston, B. O. (1985). *Educating able learners: Programs and promising practices.* Austin: University of Texas Press.

Daniel, N., & Cox, J. (1988). *Flexible pacing for able learners.* Reston, VA: The Council for Exceptional Children. ED 298 725

Gallagher, J. J. (1985). Educational strategies for gifted students in secondary schools. *NASSP Bulletin, 69*(482), 17–24.

Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences.* New York: Basic Books.

Goodlad, J., & Anderson, R. (1959). *The nongraded elementary school.* New York: Harcourt Brace.

Kulik, J. A., & Kulik, C. C. (1984). Synthesis of research on effects of accelerated instruction. *Educational Leadership, 42*, 84–89.

Robinson, N. M., & Robinson, H. B. (1982). The optimal match: Devising the best compromise for the highly gifted student. In D. Feldman (Ed.), *Developmental approaches to giftedness and creativity* (pp. 79–94). San Francisco: Jossey-Bass.

Slavin, R. E. (1987). Grouping for instruction in the elementary school. *Educational Psychologist, 22*, 109–127.

Snow, R. E. (1986). Individual differences and the design of educational programs. *American Psychologist, 41*(10), 1029–1039.

Stanley, J. C. (1979). Educational non-acceleration: An international tragedy. In J. J. Gallagher (Ed.), *Gifted children: Reaching their potential* (pp. 16–43). Proceedings of the Third International Conference on Gifted Children. Jerusalem, Israel: Kollek & Son.

Van Tassel-Baska, J. (1986). Acceleration. In C. J. Maker (Ed.), *Critical issues in gifted education: Defensible programs for the gifted* (pp. 179–196). Rockville, MD: Aspen.

The major agency concerned with flexible pacing for able or gifted learners is

Gifted Students Institute
PO Box 11388
Ft. Worth, TX 76110-0388.

This publication was prepared with funding from the U.S. Department of Education, Office of Educational Research and Improvement, under contract no. R188062207. The opinions expressed in this report do not necessarily reflect the positions or policies of OERI or the Department of Education.

ERIC Clearinghouse on Handicapped and Gifted Children

ERIC stands for the Educational Resources Information Center, an information system in existence since 1966 and currently sponsored by the Office of Educational Research and Improvement, within the U.S. Department of Education. There are 16 ERIC clearinghouses, each dealing with a particular area of education. The Council for Exceptional Children has been the host institution for the ERIC Clearinghouse on Handicapped and Gifted Children since its inception.

ERIC clearinghouses perform three major tasks.

1. They acquire the subject literature and unpublished or (informally published) literature in education. Clearinghouses then abstract and index the materials they select for the ERIC database. Documents are announced monthly in *Resources in Education (RIE)* and *Current Index to Journals in Education (CIJE)*.
2. They respond to questions about information that is in the database. They also network with other agencies that have similar scopes of interest and refer inquiries to other resources.
3. They analyze and synthesize the literature into research reviews, knowledge syntheses, state-of-the-art studies, digests, studies on topics of high current interest, and other similar documents designed to compress the vast amount of information available into usable formats for ERIC users. These products constitute new contributions to the literature.

Each year the ERIC Clearinghouse on Handicapped and Gifted Children produces several major publications, more than a dozen new or revised digests, and computer search reprints designed to respond to user requests and to provide leadership about emerging issues. All products produced by clearinghouses are reviewed by experts in the field and represent the best knowledge that is available.

For general information about the ERIC system, call ACCESS ERIC 1-800-USE-ERIC.

For specific information about disabilities and/or giftedness, call ERIC-CEC at 703/264-9474.

ERIC®